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World Business Newspaper

WEDNESDAY DECEMBER 6 1995

Rubbermaid to cut jobs after \$150m pre-tax charge

Rubbermaid, the US houseware manufacturer once cited as the most admired corporation in the US, is to cut its workforce by 9 per cent and take a charge of \$150m before tax in the fourth quarter. The company said of about 1,250 job losses, the "vast majority" would be in the US and Canada. The company issued a profits warning for the second time this year, saying full-year earnings per share before the charge would be about \$1.00, compared with \$1.42 last year. Page 17

US speaker warns of threat to markets

US interest rates will rise sharply and stock markets will crash if Congress and US President Bill Clinton fail to strike a bargain on balancing the federal budget, speaker of the House of Representatives Newt Gingrich (left), warned. Postponement would signal to the electorate that the government had failed to grasp the best chance "in a generation" to balance the budget, he told a meeting of the American Medical Association in Washington. Page 16

González warns on EU enlargement: The European Union has failed to prepare any strategy to deal with the looming prospect of up to 12 new member states, Felipe González, the Spanish prime minister, warned. Page 16; Report points EU on path to change, Page 2; EU pact heads off action, Page 5; This man's not for turning, Page 15

Sweden's Persson to run for premier: Göran Persson, Sweden's finance minister, was last night set to become the official successor to Ingvar Carlsson who steps down as Social Democratic party leader and prime minister next March. Page 3

Veba network launch 'imminent': Veba, German energy-based conglomerate, said it expected to receive a licence within the next three weeks to connect 10,000 households to a multimedia network in an effort to become the biggest telecoms operator in Germany, alongside state-owned Deutsche Telekom. Page 18

Sieba firm on acquisition strategy: Sieba, the international controls and appliances group, vowed it would continue with its aggressive acquisition strategy after spending more than £28m (£136m) on bolt-on subsidiaries in the first half. Page 23; Lex, Page 16

Defence report urges collaboration: The European defence industry must collaborate more closely and rationalise if it is to survive as a global competitor, according to a new report from a group of British MPs. Page 16; Missile tenders invited, Page 8; Editorial Comment, Page 15

WestLB in talks on Bank Austria link: Westdeutsche Landesbank Girozentrale, the big German regional bank, is negotiating to buy a stake of up to 10 per cent in Bank Austria. Page 17; Lex, Page 16

BP stake sale raises \$790m: The UK government raised more than \$500m (\$790m) from the sale of its remaining 1.8 per cent stake in British Petroleum. Page 17

Bidders line up for Canada mining stake: Almost all the world's big mining companies are competing for a stake in the Volsey Bay nickel project in Labrador, Canada, described by some analysts as the most important mining discovery for 30 years. Page 22

Drugs sales growth at three-year high: The strong growth of pharmaceutical drugs sales in the US has lifted the rate of growth worldwide to 8 per cent, the highest level for three years. Page 5

EU pact heads off trade action threat: The European Union has reached a political accord on compensation to its main trading partners - the US, Canada and Australia - to cover the accession of Austria, Finland and Sweden to the EU. Page 5

Germany tops world drinking leagues: Germans outrank the rest of the world last year, with the average citizen consuming 138.6 litres of beer, researchers at the German Addiction Centre said.

Three die in Russian kindergarten attack: Three children were killed by three grenades thrown by a man who took them hostage at a kindergarten in Russia's Caucasus region of North Ossetia, 100km (60 miles) from the border with Chechnya. Police arrested the man, a local resident, who was also injured by shrapnel.

STOCK MARKET INDICES			
New York Stock Exchange	4,425.25	New York Composite	387.3
Dow Jones Ind. Av.	5,182.15	NASDAQ Composite	1,089.29
Europe and Far East			
London	2,814.87		
Frankfurt	2,239.98		
Paris	3,654.2		
FT-SE 100	18,779.53		
Nikkei	18,779.53		
US LUNCHTIME RATES			
Federal Funds	5.75%		
3-month Treasury bill	5.481%		
Long Bond	11.112		
Yield	6.002%		
OTHER RATES			
UK 3-6m interbank	6.1%		
UK 10 yr Gilt	10.7%		
France 10 yr OAT	10.8%		
Germany 10 yr BfL	10.2%		
Japan 10 yr JGB	11.343%		
NORTH SEA OIL (Argus)			
Brent 15-day (Jan)	\$17.40		
Tokyo close	¥101.4		

Australia	S&P 300	India	SENSEX	UK 10 yr Gilt	10.7%
Bahrain	Dubai	Indonesia	JKSE	France 10 yr OAT	10.8%
Bangladesh	Dhaka	Japan	Nikkei	Germany 10 yr BfL	10.2%
Brazil	Bovespa	South Africa	JSE	Japan 10 yr JGB	11.343%
Canada	TSX	Sweden	OMXC20		
China	Shanghai	Switzerland	SIX		
Denmark	Copenhagen	Taiwan	TSE		
Egypt	Cairo	Thailand	SET		
Finland	Helsinki	Turkey	BIST		
France	CAC 40	USA	Dow Jones		
Germany	DAX				

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Roh charged in S Korean slush fund case

By John Burton in Seoul

Seven business chiefs accused of paying kickbacks

South Korean prosecutors yesterday charged former president Roh Tae-woo and seven business leaders, including the chairman of the giant Samsung and Daewoo groups, with bribery in connection with a slush fund scandal. But prosecutors decided not to press charges against almost 30 other top executives who had been questioned in the investigation of Mr Roh's slush fund. Mr Roh was charged with accepting \$370m in bribes, mostly from large conglomerates, during his 1988-93 term. The limited prosecution of the

businessmen avoids a feared disruption of South Korea's booming economy that could have been caused by a mass indictment of executives. Those charged with giving kickbacks to Mr Roh for state contracts included Mr Lee Kun-hee, Samsung chairman; Mr Kim Woo-cheong, Daewoo chairman, and the heads of Daewoo, Jinro, Daehan, Dongbu and Daeha - all medium-sized groups. Daewoo allegedly gave Won15bn (\$19.5m) to Mr Roh to win government construction contracts, while Samsung allegedly provided Won10bn to secure

a licence to begin vehicle production. Samsung is Korea's biggest conglomerate, or chaebol, with interests in electronics, shipbuilding, construction and vehicles. Daewoo, the nation's fourth largest group, has a similar industrial profile. None of the charged businessmen was arrested, which indicates they will receive suspended jail sentences if convicted. Industrial leaders from Hyundai, LG and other chaebol escaped prosecution because the government favours which they

allegedly received from Mr Roh were considered insignificant, say prosecutors. In addition, some businessmen avoided charges because the five-year statute of limitations on their alleged bribery of Mr Roh had expired. The charges brought against the Samsung chairman surprised some observers, since Mr Lee has enjoyed good relations with the present administration of President Kim Young-sam. Samsung denied its "donations" to Mr Roh were "in any way related to or in pursuit of

any special favours or privileges". The changing of Mr Lee will not affect Samsung's overseas investment projects, the group added. Mr Roh amassed a fund of Won450bn, according to the prosecutors. He invested Won225bn in property and securities and lent Won97bn to the Daewoo and Hanbo groups. The chairman of Hanbo steel and construction was arrested last week after trying to flee. Mr Roh also provided Won140bn to ruling party candidates for parliament during his term. Opportunity lost to cut chaebol state ties, Page 4

PM acknowledges need for union approval on reforms as protests grow

Juppé offers talks in move to ease French crisis

By David Buchanan and John Riddington in Paris

Mr Alain Juppé, France's prime minister, yesterday offered fresh talks with the unions leading the mass strikes and protests against planned changes in welfare, pensions and public services. Mr Juppé's statement acknowledged that after 12 days of strikes, which yesterday hit more state and private companies, he must win some union approval for reforms which he had earlier counted on pushing through with only parliamentary endorsement. One moderate union interpreted his statement as a partial climbdown, but the unions leading the campaign of industrial unrest said the gesture was inadequate and that the proposed reforms must be scrapped. Nonetheless, the glimmer of a breakthrough in the crisis was enough for the Paris Bourse's CAC-40 index to regain 2.35 per

cent, almost recouping its 2.53 per cent fall on Monday. The franc recovered most of Monday's losses, standing at FF345.8 to the D-mark from 348.1. This will ease pressure for interest rate increases by the Bank of France, some of whose staff have voted to carry out stoppages on Thursday and Friday. Mr Juppé told the National Assembly that he would stick to the social security reforms he announced in mid-November. France faced an "historic choice between change or decline", he said, referring to plans to join Germany in monetary union, scheduled for 1999. "We can either play in the first division... or slip into the second league," Mr Juppé warned. "France can and must embark boldly on the road to reforms which have been delayed too long," he said in the debate on a censure motion tabled by the opposition Socialists.



Alain Juppé: On monetary union France faced an 'historic choice between change or decline'

"That is why I can calmly confirm to you: I will maintain my reform plans". Mr Juppé said the government would consult unions and employer organisations on draft legislation and decrees implementing the social security changes and on the future of public services. On changes in public sector pension schemes - the aspect of the Juppé plan that has drawn widest criticism and anxiety from strikers - he stressed that a newly-appointed govern-

ment commission would take full account of unions' views and that the government would do nothing to pre-empt the commission's recommendations. But he did not retract his November statement that public sector workers would, as a rule, see the period of their pension contributions lengthened from 37½ to 40 years. Mr Jean Gandois, head of the Patronat employers' federation, has suggested that only by giving the commission a completely free

hand could Mr Juppé defuse the strikes. These came to a head yesterday in mass protest marches in Paris and in major provincial cities, crippling public transport and disrupting many other public services. A few private companies, including Michelin, Perrier and Kodak of the US, also saw brief sympathy protests by workers. Some French companies see profit in strife, Page 3

Porsche returns to profit and plans production abroad

By Michael Lindemann in Stuttgart

Porsche scraped back into profit in 1994/95 after losing DM465m (\$315m) over the previous three years, and said it planned to move production of its next new sports car outside Germany for the first time. Mr Wendelin Wiedeking, the chief executive who joined the company in 1991 and has overseen one of the most radical shake-outs in German industry, said the company had made a net profit of DM12.1m in the year ended July 31, a turnaround from a loss of DM150m a year earlier. He said he expected Porsche to earn a similar profit in the coming year and that the company would see significantly better results in 1997 after the launch of its new model, the Boxster, due out next September. About 10,000 customers have already put down deposits for the Boxster, expected to cost between DM70,000 and DM80,000. The company already has two development centres abroad, in the US and Japan, but said it would open another one in Asia which would take over work done at the existing facilities at Weissach, near Stuttgart. Porsche has also set up several subsidiaries to market its special skills. One, a 50:50 joint venture with Mercedes-Benz to produce roofs for convertibles, is already working for other clients like



The Boxster: About 10,000 customers have put down their deposits

presence. Early next year the company expects to announce the results of seven feasibility studies into new models. Porsche is looking for a partner to produce these new sports cars and will, for the first time, move production away from its plant near Stuttgart because the cost of building a new plant in Germany has become prohibitive. The company already has two development centres abroad, in the US and Japan, but said it would open another one in Asia which would take over work done at the existing facilities at Weissach, near Stuttgart. Porsche has also set up several subsidiaries to market its special skills. One, a 50:50 joint venture with Mercedes-Benz to produce roofs for convertibles, is already working for other clients like

Saab, the Swedish car maker. Porsche said it had made productivity gains of 8 per cent this year, helped by new working methods introduced by two former Toyota engineers, and expects a further 10 per cent rise. In the five years to September 1997, the company will have increased productivity by 50 per cent, enabling it to build a Porsche 911 in 60 hours. Sales rose 12 per cent to DM2.6bn in 1994/95 and Mr Wiedeking said the company was again enjoying a "boom" in US sales which more than compensated for the strength of the D-Mark against the dollar. The company sold 17,268 cars, 8 per cent up on the 15,842 sold last year.

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الرياضيات

NEWS: EUROPE

France aims to apply oil to Nato's squeaky wheels

By Bruce Clark in Brussels

France yesterday hailed its closer relationship with Nato as an attempt to give a boost to solving a series of complex issues with which alliance members have wrestled unsuccessfully for two years.

In particular, it will press for early resolution of the debate about a new model for EU-European military co-operation, in which the US would provide logistics and transport and the Europeans most, or all, of the troops. Mr Hervé de Charette, the French defence minister, said he regretted the two-year deadlock over this issue but was hopeful that consensus could be reached soon.

President Bill Clinton and the other 15 leaders of Nato governments agreed in January 1994 to develop as rapidly as possible a new model for co-operation, known as CJTFE (combined joint task force). But discussions have become bogged down over how much say the US would have over military missions that were mainly staffed by Europeans, and whether the US provision of logistical help would be automatic or subject to frequent review by Washington.

The US and most of its European allies also disagree on the

UN officials said yesterday they were seriously worried about lack of co-ordination between the international and regional bodies which are supposed to implement the Bosnian peace agreement signed last month in Dayton, Ohio, writes Laura Silber in Belgrade.

Mr Kofi Annan, senior UN envoy to ex-Yugoslavia, began a round of discussions yesterday with envoys of the five-nation contact group with the aim of dividing up the tasks. This effort will move into high gear on Friday with a meeting organised by the British government in London which will allocate tasks between the UN and other civilian agencies.

The UN will have no military role in Bosnia once the 60,000-strong Nato implementation force (Ifor) has been deployed. But the UN High Commissioner for Refugees will be responsible for trying to resettle as many as possible of the country's 2m displaced persons before the elections envisaged for next year can begin.

headquarters of any CJTFE. Washington insists such missions be based in an existing Nato command, while France favours greater flexibility.

Another question on which Paris wants faster progress is the future status of the Western European Union, an embryonic defence club to which 10 Nato members belong. France is keen to combine preservation of the transatlantic link - about which it is seriously worried - with the fulfilment of its long-standing dream of a fully fledged "defence identity" for Europe.

Hitherto, Britain has been wary of French enthusiasm for

the latter project. But yesterday, British and French officials stressed the compatibility of their ideas on the subject. Both want to keep the US presence in Europe, and neither wants any new supranational structure to take over defence co-operation within Europe.

Mr de Charette made clear yesterday that France would use its more prominent seat at the alliance table to press for the formulation of Nato's troubled relationship with Russia into a full-blown charter giving Moscow a place in Europe's security order.

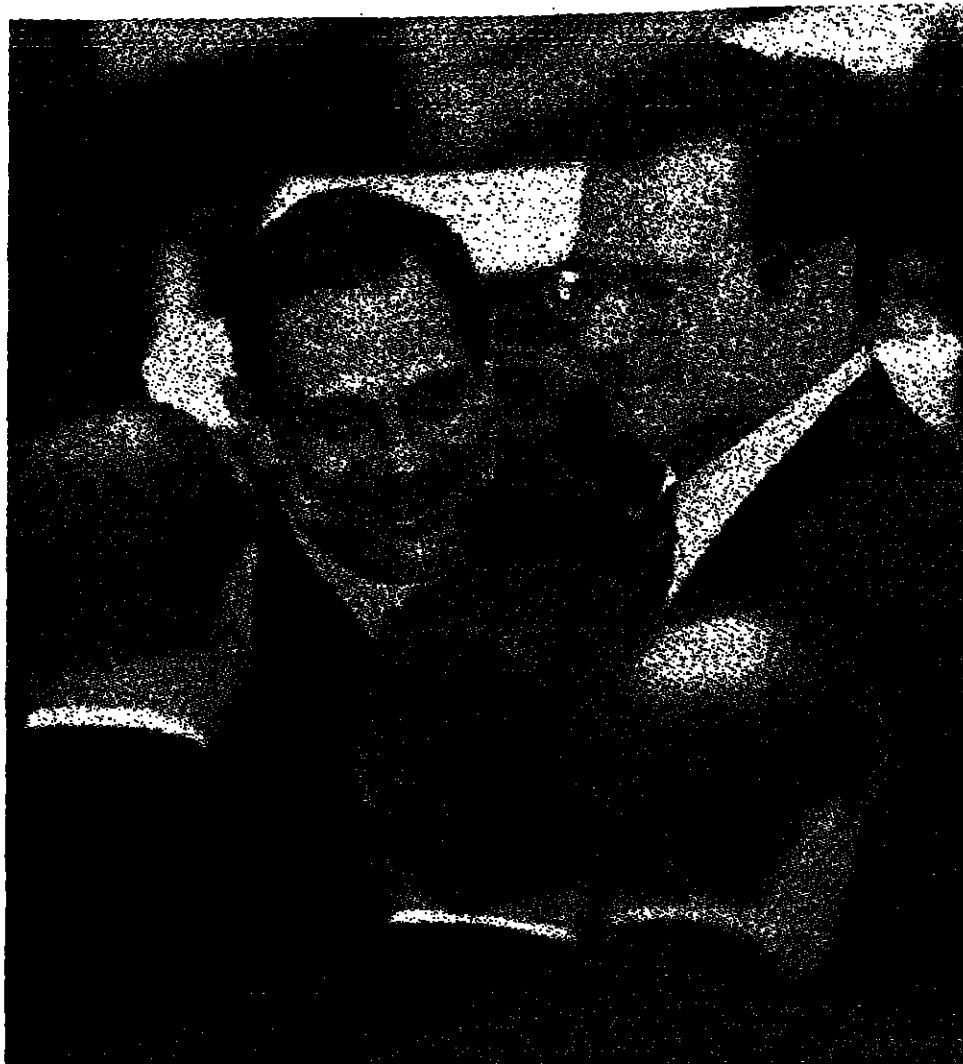
Paris is also committed, along with its allies, to the

principle of enlarging Nato, but it seemed more than happy yesterday to endorse the latest alliance pronouncements on the issue, which aimed to "play for time" and avoid naming countries or timeframes for at least another year.

UK officials said Mr Malcolm Rifkind, Britain's foreign secretary, called for "sensitive handling" of the enlargement issue at a time when Russia faces two important elections. Mr Rifkind stressed the need for closer Nato co-operation with Ukraine, a country that is unlikely to be in the first wave of any Nato enlargement but is resisting Russian pressure for closer military links.

Instead of hastening towards enlargement, the Nato ministers agreed to deepen their existing co-operation with the ex-communist world, to adapt the alliance's military structure to incorporate possible new members, and to begin "individual dialogues" with would-be members.

These limited gestures are expected to reassure Russia, whose foreign minister, Mr Andrei Kozyrev, arrives in Brussels today. However, they may prompt charges in central Europe that the alliance is merely looking for excuses to shelve any firm decisions.



Spain's foreign minister, Mr Javier Solana (centre), is congratulated at Nato yesterday on his appointment as secretary general

Dini warns against speeding up Emu

By Andrew Hill in Milan

Mr Lamberto Dini, the Italian prime minister, warned yesterday that moves to accelerate European monetary union could leave out member states and reduce Emu's economic and political value.

In a speech to the Italian parliament, he sent a strong message to Italy's EU partners that the meeting to decide which countries can go forward to monetary union in 1999 should not be held before spring 1998.

This would give Italy, among others, time to demonstrate its suitability for Emu with full accounts for 1997.

Mr Dini said yesterday that parliament would have to make the "considerable, but not impossible" commitment to accelerate plans to reduce its own budget deficit in order to become eligible for monetary union.

He also addressed the continuing uncertainty over whether early elections will be held during Italy's six-month presidency of the European Union, which begins on January 1.

The government which runs the presidency must have clear ideas and receive a clear mandate, he told Italian deputies at the opening of a three-day parliamentary debate on the government's European programme.

He was referring to the motion on the presidency, which should be put to a vote tomorrow, but the passage seemed certain to be interpreted as a call to extend his own term in office.

Mr Massimo D'Alema, leader of the former communist PDS, has called on parties to make up their minds about the fate of the technocratic government before next week's summit of EU leaders in Madrid.

On the right, Mr Silvio Berlusconi's Forza Italia movement, and the National Alliance (AN) of Mr Gianfranco Fini, are calling for elections as early as February.

But Mr Romano Prodi, who heads the centre-left grouping of parties, including the PDS, said yesterday that elections should be held towards the end of May, a move which would allow the government to stay in office as a caretaker administration until the end of June.

"That would give a useful message about the seriousness and clarity [of the presidency] to our European partners," Mr Prodi said.

Mr Dini is set to stand down at the end of this year, but parliament could renew his mandate for a limited period.

He and President Oscar Luigi Scalfaro have already said they would prefer elections not to be held during the EU presidency, which will launch the intergovernmental conference on revision of the Maastricht treaty at a special summit in Turin in March.

Mr Dini will meet Mr John Major, his British counterpart, in Florence today to discuss the forthcoming presidency. Italy is particularly concerned about being left out of the process of European integration.

The Italian premier yesterday called for "extreme caution" about German proposals that a hard core of countries which meet Maastricht criteria on monetary union should take decisions on the move to a single currency.

In an interview published yesterday in the Italian daily La Repubblica, Mr Major indicated he shared Italian worries. He said he welcomed Franco-German co-operation at the heart of Europe "as long as it doesn't turn into an exclusive club which keeps out the others".

EU divisions surface over Reflection Group report

By Lionel Barber in Brussels

The European Union yesterday set in motion a protracted debate over its future with the publication of a long-awaited report on institutional reform to pave the way for enlargement.

Divisions quickly surfaced among members of the Reflection Group of government-appointed experts who are charged with preparing next year's intergovernmental conference to review the Maastricht treaty, despite the relatively modest recommendations of their report.

Britain is leading resistance to broad institutional reform, but is isolated on the principle of extending majority voting, awarding limited

new powers to the European Parliament, and extending EU-wide powers to asylum, visa and external border controls, as well as the need to preserve the UK's opt-out from the Social Chapter.

Group members were confidently predicting yesterday that British intransigence would force the IGC to stretch into mid-1997. Several governments believe that the best chance of flexibility lies with a change of government after the UK election which must be held at the latest by April 1997.

However, Mr David Davis, UK foreign office minister, expressed satisfaction that the report had taken note of British positions in favour of competitiveness, restraint in new

Euro-legislation, national sensitivities in areas such as immigration, and the need to stay in touch with European public opinion. "We are looking at a relatively modest outcome at the end of the IGC," he said.

But Mr Elmar Brok, a Christian Democrat MEP who is close to Chancellor Helmut Kohl, claimed that the European Parliament's case for more majority voting received a "very broad majority". He described British opposition as a case of "fog in the Channel. Continuity is isolated".

Mr Carlos Westendorp, the senior Spanish diplomat who chaired the Reflection Group, said it was not necessary to revise the Maastricht treaty wholesale, but the IGC needed to agree sufficient changes to cope

with today's challenges and tomorrow's task of enlargement.

The group's report does not tackle issues such as reform of the common agricultural policy or regional aid to cope with enlargement, and the group concluded unanimously that Maastricht's provisions for launching a single European currency in 1999 should not be reopened.

Mr Westendorp listed three broad areas for discussion at the IGC.

● Making Europe more relevant to its citizens. This means responding to concerns about employment, the environment and internal security, such as protection against drug trafficking, money laundering, organised crime, and illicit immigration.

The report suggests promoting

European values, with majority sentiment in favour of proclamations on sexual equality, racism and xenophobia, and a procedure for their enforcement. Some backed the creation of an EU "Peace Corps" for dispatching and dispensing humanitarian aid.

● Improving the efficiency of EU institutions. The majority favoured the principle of extending majority voting, but an annex reveals that individual member states are reserved if this means higher costs, say, in social or environmental policies - a reference to southern countries including Spain.

The report does not resolve the vexed question of changing voting weights to take greater account of

population, a demand from Britain, France, Germany and Spain. But one country (believed to be France) suggests it will not support an extension of majority voting unless it obtains satisfaction on voting weights.

● On foreign policy, the reports calls for a study of how to develop new, more flexible approaches which will not prevent those who want to take common action from doing so.

It also suggests the creation of a new analysis and planning unit, and calls for ways to give the EU a higher profile, possibly with a high representative along the lines of Mr Carl Bildt as special EU envoy to former Yugoslavia. But some states fear that this could undercut the European Commission.

Westendorp completes the near impossible

By Lionel Barber in Brussels

Mr Carlos Westendorp rarely lets his professional mask slip. But even the Spanish diplomat's sunny features betrayed relief yesterday after completing one of the most difficult exercises in his career: chairing and authoring the report of the high-level group on EU constitutional reform.

His was a near impossible mission. Although a dry-run ahead of next year's EU intergovernmental conference, it lacked the cut-and-thrust of a negotiation. The group itself was a motley collection of gov-

ernment-appointed experts, junior ministers, and representatives of the European Commission and Parliament.

Mr Westendorp had to cope with British obstreperousness, French reticence, German idealism, and what he calls the occasional outburst of "fundamentalism" from unnamed group members whose enthusiasm for supra-national decision-making remains untamed.

He lacked the focus of the Delors group on monetary union or the Dooeg group on the single European market which was working to a clearly defined goal. His task

was more nebulous: to assess the effectiveness of the Maastricht treaty and identify options for change at next year's IGC, with one eye on the prospective enlargement to eastern Europe.

Having spent 25 years on the European diplomatic stage, Mr Westendorp, 58, was well placed to chair the so-called Reflection Group. A former Spanish ambassador to the EU who serves as state secretary for European affairs, he is a smooth, artful, if at times sharp-tongued, defender of his country's interests.

The traditional diplomatic

method in the EU seeks consensus at all costs. But Mr Westendorp realised that this approach would produce a report so devoid of content that it would be meaningless; so he deliberately sought to identify areas of dissent, without revealing country's names.

With the exception of the British, he found teasing out individual countries' positions a challenge. The Nordic newcomers were timid; others were wary about another "great leap forward" in integration falling foul of the European public.

But on issues such as quali-

fied majority voting, co-operation on immigration, asylum, external border controls, and more powers for the European Parliament the lines are now drawn, often with Britain isolated.

It remains less clear whether Mr Westendorp has succeeded in sketching an institutional framework to prepare for an enlarged Union of 27-plus members, with boundaries stretching from Malta in the south to Estonia and Romania in the east.

More likely, he has used the inevitability of enlargement to bludgeon participants into

agreeing that some institutional reform must take place.

The Reflection Group may be Mr Westendorp's swan-song to Europe. A Socialist, he is unlikely to survive in his post if Mr Felipe Gonzalez, his prime minister, loses next spring's election. A fluent English speaker, he is most likely to seek an ambassadorial post in the US.

But there is a chance that, with the departure of Mr Javier Solana to the post of Nato secretary general, he may be elevated to replace the Spanish foreign minister. He would not say No.

Ministers spurn three out of four measures and halve spending

Commission social policy setback

By Caroline Southey in Brussels

The European Commission's drive to promote social policy through action programmes suffered a severe setback yesterday when employment ministers agreed to slash proposed funds to boost equal opportunity measures in the EU.

Efforts by Mr Padraig Flynn, commissioner for social affairs, to put in place a system under which member states could exchange information on best practice in four areas of social policy were left in disarray after ministers agreed to back only one - on equal opportunities - then voted to cut the proposed ECU60m (£78m) funding package by half.

Mr Flynn described the deci-

sion as "a very negative signal as far as the EU social programmes were concerned". Mr Flynn faces stiff opposition, particularly from Germany, which has challenged the Commission's right to make policy recommendations in the four areas - equal opportunities, action on employment, support for the elderly and health and safety at work.

Although ministers agreed to the programme covering equal opportunities, they failed to offer opinions on health and safety at work and action on jobs. The Commission has virtually abandoned efforts to secure agreement on a programme covering support for the elderly.

Germany, which agreed to back the programme on equal

opportunities on condition the funds were cut to ECU30m over five years, is nevertheless expected to continue to block the other three programmes on the grounds that the EU has no competence to deal with the issues.

The Commission has relied heavily on using social action programmes to pursue the bulk of EU social policy as laws covering minimum standards have been put in place and legislative initiatives have been wound down.

The Commission has given notice it will introduce no new social policy legislation next year, although it is likely to propose directives on issues now being discussed by the social partners, such as burden of proof in sex discrimination

cases, parental leave and part-time work.

"The Commission is using an enabling clause in the treaty to pursue over 90 per cent of social policy which it doesn't have a specific legal base to act on," an EU official said. "That ability is now under threat."

The four action programmes backed by EU funds are designed to encourage member states to exchange information on best practice, launch information campaigns and set up pilot projects.

Mr Flynn said he "deeply regretted" the decision to cut the Commission's proposed funding level by half, adding that it sent "a serious negative message" to women across Europe.

Moscow bomb raises poll fears

By John Thornhill in Moscow

A powerful explosion wrecked an office inside the Russian parliament building yesterday, raising concerns about political violence in this month's election campaign.

The cause of the explosion was unknown last night, but it was suspected to have been an attempt to assassinate Mr Nikolai Lyzenko, an extreme right-wing deputy who heads the National Republican Party of Russia. Mr Lyzenko left his office only minutes before the blast which blew a hole in a wall and shattered windows but caused no serious injuries.

On Monday, a car bomb exploded in Grozny, capital of Chechnya, killing at least 11

people. Chechen separatists have vowed to disrupt the election of a new regional leader, scheduled the same day as Russia's parliamentary vote on December 17.

Chechen separatists have threatened to launch terrorist attacks on Moscow, but no evidence linked them with yesterday's explosion. Mr Lyzenko, who combines a hatred of the US with a loathing of communism, is a controversial figure.

Law and order has been seized on by parties contesting the parliamentary elections. General Alexander Lebed, a leader of the nationalist Congress of Russian Communities movement, has vowed to combat the "huge criminal force in Russia".

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EUROPEAN NEWS DIGEST

Brussels talks on Iberia threat

Talks between the European Commission and Iberia, the cash-strapped Spanish state airline, continued yesterday, in spite of a declaration by the Spanish government that it intended to pay Pta130bn (\$1.1bn) of state aid to the airline on December 23, whether agreement on the legality of the aid was reached or not.

Such a move would almost certainly lead to Spain being taken to court for breach of European Union rules on state aid. The rules are that with such an investment a government should be like a private investor, operating under the same conditions, and with prospects of profits.

However, the Spanish statement is widely believed to have been a political gesture for domestic consumption ahead of a likely agreement in the next two weeks on how much aid can be paid. Brussels has said all along that Pta130bn is out of the question, while the Spanish authorities have argued that this is the amount required to bring the company - already a recipient of earlier aid - back to viability. Brussels is willing to consider a smaller amount - less than Pta100bn - if it is within the rules.

Spain's industry minister, Mr Juan Manuel Eguiguren, said in a radio interview yesterday: "If there is no agreement I will not let Iberia's position deteriorate, damaging the interests of the company and of Spain." Mr Eguiguren was speaking after the airline's board announced an extraordinary general meeting for December 23 to approve the Pta130bn injection of public funds. *Emma Tucker, Brussels, and Tom Burns, Madrid*

French fury on bomb suspect

France has criticised Sweden over its decision not to extradite Mr Abdelkrim Denshe, an Algerian suspected of organising a bombing last July on the Paris metro which killed seven people and injured 86. Swedish officials said yesterday.

The French justice minister, Mr Jacques Toubon, said in a letter addressed to Swedish justice minister Laila Freivalds that the issue could harm relations between the two countries.

"I can only express my regret that the Supreme Court has published an unfavourable decision which binds your government and which could raise doubts over the quality of relations between our two countries in the fight against terrorism," said the letter to the Swedes obtained by Reuters.

A Swedish justice ministry spokesman said: "The decision was made by the highest court, the Swedish Supreme Court, which means there is no possibility for the government to change this decision." *Reuters, Stockholm*

Bonn backs Turkey-EU pact

The German government yesterday gave strong backing to the planned customs union between the European Union and Turkey but reservations about Turkey's human rights record were apparent among opposition parties.

During a two-hour discussion in Bonn with Ms Tansu Ciller, the Turkish prime minister, Mr Helmut Kohl, Germany's chancellor, said his centre-right coalition government "emphatically supported" the customs union, which will be subject to a vote in the European Parliament on December 13. Mr Cem Ozdemir, a German Green MP of Turkish extraction, said Turkey's people should not be punished for their government's policies. But other Green MPs said the EU parliament should only approve the customs union once improvement in Turkey's human rights record was clear. The former communist Party of Democratic Socialism said there should be no customs union without a political solution of the Kurdish problem, the release of imprisoned Turkish MPs and an amnesty for political prisoners. *Peter Norman, Bonn*

Contraceptive pill cost ruling

A British subsidiary of Astra, the Dutch drugs company, to lower the price it charges in the Netherlands for the Marvelon contraceptive pill.

The pill was being sold for 12.5 per cent more in the Netherlands than in the UK in order to protect the Dutch subsidiary of Organon which was also distributing Marvelon. Dutch rules encourage pharmacists to buy foreign imports where they are cheaper than the Dutch equivalent. Brussels investigated after three complaints last year from companies in the UK and Germany who spotted that Organon was charging more for pills destined for markets outside the UK.

Organon agreed to end the practice in October last year, but details of the agreement were kept secret until now, because of adverse publicity surrounding alleged health dangers associated with Marvelon and other contraceptive pills. Marvelon is one of the world's most popular birth control pills, and in the EU is particularly popular in the Netherlands - where it has 20 per cent of the market - and the UK - where it has some 25 per cent. *Emma Tucker, Brussels*

Power liberalisation hopes

The UK is hopeful that progress can be made in opening up the EU electricity market to greater competition at next week's council of energy ministers, according to Mr Tim Eggar, the UK energy minister.

Mr Eggar said yesterday that Spain had used its presidency to good effect to overcome resistance to plans to allow distributors in one country to be able to supply power to another EU state's electricity market.

Countries such as Italy, Germany, and Spain were now more amenable to accepting changes the UK has been seeking for several years.

However, Mr Eggar said the strikes in France by public sector workers, including those in power generation, could jeopardise the chances of agreement. But if France opposed liberalisation plans it would find itself in an isolated position, in the UK's view. *David Lascelles, London*

ECONOMIC WATCH

Finland hit by weaker trade

Finland recorded an unexpected current account deficit of FM700m (£106m) (\$167m) in October, breaking with a pattern of healthy surpluses over many months. The outcome compares with a FM2.1bn surplus in September and a FM900m surplus in October 1994. The deficit reflects a weaker trading performance, with the October trade surplus shrinking to FM1.2bn from FM3.4bn in September and from FM3.3bn a year ago. Finland's exports are being hit by the stronger market and by weaker trends in the pulp and paper sector, the country's leading export industry. At the same time, imports are being buoyed by rising private consumption and increased investment.

The Finnish economy is expected to grow by nearly 5 per cent this year. In the first 10 months of the year, the current account showed a FM12.4bn surplus, up from FM7.3bn in the same 1994 period. The trade surplus rose to FM3.9bn from FM3.0bn.

German M3 money supply grew at a final annualised rate of 1.7 per cent in October from the fourth quarter of last year, the Bundesbank said. This compares with a provisional rise of 1.8 per cent announced at the end of last month. In September, M3 expanded by 1.6 per cent.

Belgian registered unemployment in November fell to 14.4 per cent of the workforce from 14.7 per cent in October. Austrian unemployment remained stable last month at 4.7 per cent.



Strikers marching through central Paris yesterday to defend social and welfare benefits against a government austerity plan.

PARIS STRIKERS TRY TO DRUM HOME MESSAGE

By John Riddling and Andrew Jack in Paris

The icy front that blew in from Russia yesterday failed to cool the ardour of France's disaffected, who chanted their way through the country's main cities and turned up the heat on Mr Alain Juppé's unpopular government.

Tens of thousands took to the streets of the capital, snaking from the Place de la République to the Gare Saint Lazare and the sound of jazz-funk music, klaxons and a barrage of anti-Juppé slogans.

The grievances of the Paris marchers were as diverse as those who expressed them. "We are more important than armaments," said Armand, a 22-year-old student demanding improved funding for universities.

Around him in a snow shower marched electricity workers opposed to liberalisation of the European energy market, Air France workers opposed to privatisation and hospital staff condemning closures.

Radicals from the Bank of France and the National Archives took their places

Despite the prospect of worsening strikes and transport turmoil, next week's lavish draw ceremony for the qualifying matches of the 1998 football World Cup will take place as planned in Paris, AP reports from Zurich. An estimated 2,500 people will be involved in the draw on December 12. These include 180 VIP guests, 60 officials of football's governing body, Fifa, and 700 journalists.

Mr Joao Havelange, Fifa president, said it had been decided to keep to the scheduled date after talks in Paris with French tournament organisers and government representatives.

Behind railwaymen, the spearhead of the strikes - they are rejecting productivity measures and welfare reforms.

"We are at the front of this movement," said Bernard Dufon, a partly rail engineer of communist persuasion. "Railmen have always been ready to fight the government," he said to some back slapping from a burly colleague. If the diversity of the protesters demonstrated the difficulty

of the task facing the government as it struggles to defuse the country's social unrest, there was also a unity of purpose among the crowds.

"We will fight until Juppé takes back his plans," declared one official of the communist-leaning CGT union, in a reference to the prime minister's controversial welfare reforms.

Mr Marc Blondel, leader of Force Ouvrière, the union leading the calls for strikes over the reforms, stayed away from the afternoon demonstration, but earlier spoke to a meeting of railway workers in central Paris.

He said he was willing to negotiate with the government once Mr Juppé withdrew his plan, but he broadened his list of grievances, saying his concerns included preservation of the public sector and improved wages. He warned against Mr Juppé's plan to "nationalise" pension funds, which would in turn weaken the unions' grip on the management of them.

The precision and scale of yesterday's protests suggest that practice is making perfect.

Some French companies see profit in strife

By Andrew Jack in Paris

While most businesses and shops were suffering from the escalating strikes across France yesterday, some companies were managing to profit from the disruption.

More than 700 buses and 19 river boats, hired largely from private sector operators, have been at work in Paris since Monday morning under the government's plans to provide replacement services for commuters - the estimated daily bill is about FF4m (\$636,300).

Mr Philippe Letapen of Cars Rouges, which operates a fleet of double-decker buses, normally offering tours of Paris, said he had allocated two buses to operate shuttle services within the city following requests from the regional transport authority.

Paris Vision, which also runs tour buses around the French capital, said it had experienced some decline in business with tourists staying away, but the absence of suburban rail networks had helped boost demand for services to attractions out of the city centre such as EuroDisney, which claims not to have suffered as a result of the strike.

In the absence of inter-city train services, Eurotaxis and other coach operators have been doing good business across France.

Internationally, Eurotunnel, operator of the Channel tunnel rail link, said it had been absorbing traffic more than 50 per cent above previous daily levels.

As Paris's 800,000 daily pub-

lic transport users are forced to seek other ways of travelling to work, the market for motorbikes and bicycle hire and sales has boomed.

Samaritaine, the department store, was yesterday taking delivery of a large number of bicycles in response to high sales.

A growing number of city dwellers have been walking long distances to work, or even taking - sometimes precariously - to roller skates. Ms Stephanie Danmergue, manager of the Foot Locker store in Paris, said: "Sales of both roller skates and walking shoes have gone up by about 10 per cent in the last week."

The use of cars has inevitably risen, and petrol consumption has gone up even more sharply as a result of traffic jams.

But Mr André Gellin, director of development for Hertz, said that after initial high demand for car rentals, many people were now avoiding Paris entirely and cancelling their bookings.

Transport operators have not been the only companies to gain from the industrial unrest, courier companies have also reported increased demand for the services.

Meanwhile, for those willing to pay FF4.70 for the Parisien tabloid newspaper yesterday, there was a hitch-hiking add - half of the front-page was given over to a "stop" sign with a blank section in which those hoping for lifts could fill in their destination in an attempt to halt cars passing slowly in the heavy traffic.

Persson accepts calls to take helm

By Hugh Carnegie in Stockholm

Mr Göran Persson, Sweden's finance minister, last night agreed to succeed Mr Ingvar Carlsson, who steps down as Social Democratic party leader and prime minister next March.

Reversing his repeated refusal in recent weeks to stand as a candidate, Mr Persson said he had been persuaded by the importance of the task and by a unanimous appeal by the party's leadership selection committee.

"This is an important phase for the party and for Sweden," he told reporters. "We have to complete the recovery from the financial crisis and get back to a welfare policy and the right social democratic policies."

Mr Persson, 46, has been finance minister since the Social Democrats returned to power late last year. He has presided over an unprecedented programme of spending cuts and tax increases to overcome a yawning budget deficit and fast-growing state debt. The debt is now expected to stabilise this year.

The party turned to Mr Persson in an atmosphere of near desperation after Ms Mona Sahlin, the original favourite to take over from Mr Carlsson, was forced to withdraw amid scandal over her private use of government credit cards.

Mr Persson is now almost certain to be elected unchallenged at a special party congress next March.

The financial markets are likely to approve the choice of Mr Persson who has won their confidence with his determined stance on the budget, fending off strong left-wing protests against cuts he has been forced to make in Sweden's generous welfare system.

Mr Persson stands firmly in the wing of the party arguing that the welfare state must be trimmed if it is to survive.

He was said by his close advisers genuinely to have hesitated taking the prime minister's role because of the intrusions into his private life. The circumstances of his election will ensure he will be able to take a firm grip on the party.

Meanwhile, Mr Persson yesterday enjoyed a public burst of applause from the International Monetary Fund for his tough response to the country's financial crisis over the past year.

A visiting IMF delegation, which allowed the Finance Ministry to publish its views, said Sweden was "beginning to reap the benefits of the government's firm response to the deep economic and financial crisis of the last several years".



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NEWS: ASIA-PACIFIC

Opportunity lost to cut chaebol-state ties

Prosecution elects to limit fall-out from Korea slush-fund scandal, writes John Burton

It was an opportunity to break the close and corrupt collusion between state and business. But in the end, South Korea's prosecutors decided to limit the fall-out from the slush fund scandal that has transfixed the country for almost two months.

Former President Roh Tae-woo and only seven of the more than 30 top executives implicated in the case were charged with bribery - and the businessmen are expected to receive suspended jail terms if convicted.

Such lenient treatment, a senior government spokesman admitted, was because of their importance to the national economy.

"The government had a chance to overhaul the economic system," said Mr Eugene Yun, chief economist for Schroders Securities in Seoul, "but it appears now to have missed the opportunity."

The scandal has revealed how Korea's large conglomerates, or chaebol, rose to economic power because of political favouritism, and that they have been able to maintain their dominance as officials protected them against competition.

But President Kim Young-sam appears to have shied away from the opportunity to dismantle the system and deregulate the economy. The main reason for caution is that extensive economic reforms could disrupt the country's booming industrial growth, which still largely depends on state-guided mobilisation of

resources for investments. Although the government is preparing measures to reduce the family ownership of the chaebol and improve corporate governance, they will do little to limit the central role of the chaebol in the economy. Officials are worried that a crack-down on the chaebol would slow economic growth and consequently harm the ruling party's prospects in parliamentary elections next April and the presidential election in 1997.

Indeed, Mr Kim's response to the corruption scandal has largely been one of damage control to ensure his political survival. It has tested his ability to handle the crisis.

When Mr Roh's \$570m slush fund was revealed by an opposition MP in October, it threat-

ened to engulf the president. There were allegations, widely believed by the Korean public, that Mr Kim's 1992 presidential election campaign had been illegally financed by Mr Roh, a political ally.

Mr Kim was already reeling from a severe defeat in local elections in June, with his popularity slumping to 30 per cent. His government was criticised for policy failures, including infrastructure disasters and an inconsistent stance on North Korea.

In addition, Mr Kim was being accused of protecting his two military-backed predecessors, Mr Roh and Mr Chun Doo-hwan, for their role in crushing the 1980 pro-democracy Kwangju uprising because their supporters form the ruling party's majority faction.

What is more important, Mr Kim, the country's first civilian president in three decades, went on the offensive by re-opening an investigation into the 1980 military coup led by Mr Chun and Mr Roh and the subsequent Kwangju massacre.

Such an investigation a few years ago would have provoked another army coup, but Mr Kim curbed the power of the military at the beginning of his term by purging officers loyal to Mr Roh and Mr Chun.

The arrest of Mr Chun last Sunday did much to restore Mr Kim's image as a political reformer determined to end the influence of the country's unsavoury military rulers.

The recent series of dramatic events leading to the imprisonment of Mr Chun has also served to distract public attention from the nagging question of whether Mr Kim benefited from Mr Roh's largesse in the 1992 election.

A statement by prosecutors yesterday that it would be difficult to determine which politicians received money from Mr Roh provides a satisfying conclusion for Mr Kim.

The scandal has been a blessing in disguise, said one government official. The president's poll ratings are improving and with it the chance that

he may save his slim parliamentary majority in the April elections and avoid becoming a lame duck for the rest of his mandated one-term presidency, which ends in early 1998.

But it is still uncertain whether Mr Kim's political gamble will pay off. Although the arrests of Mr Chun and Mr Roh enjoy widespread public support, many Koreans cynically believe that Mr Kim has sacrificed the two former presidents to save himself.

Some political analysts predict that the benefits from the arrests will wear off for President Kim by the time the general election is held. Questions about his 1992 campaign finances may also come back to haunt him.

However, others expect that Mr Kim will emerge victorious by breaking ranks with discredited ruling party conservatives and instead form an alliance with a new reform party and the minor centrist Democratic party, which helped elect the Roh corruption scandal.

Such a reformist bloc could win enough votes to keep control of parliament in Mr Kim's hands and bolster his chances of picking his successor as the new ruling party presidential candidate. This would also ensure Mr Kim of playing a behind-the-scenes role in the next administration.

Among the candidates believed to be favoured by Mr Kim as the next president is Mr Kim Suk-won, the former chairman of Seangyong - a large chaebol.

While some OECD countries are focusing on South Korean labour relations amid concern over the government's tough treatment of unofficial trade unions, the main elements of contention remain financial market reform and liberalisation of long-term capital movements.

Substantive discussion on these two issues is not due to begin until next February or March. Only then will it be possible to tell whether the administration of President Kim Young-sam is willing to relax its grip on these key areas of the economy.

South Korea's negotiations will inevitably be compared with those of the newly-joined Czech Republic. That process set a tough standard for South Korea to meet, the officials said.

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SEOUL HAS 'FAR TO GO' ON OECD ENTRY

South Korea's push to join the Organisation for Economic Co-operation and Development has so far been unmet by the OECD, but western officials said that much remains to be done if the country is to fulfil its ambition of membership by the end of next year. Peter Montagnon, Asia Editor, reports.

After a somewhat frosty start to the negotiations this summer, South Korea has now recognised that membership is more than just a formality and that the OECD will require serious reforms in the country, they added.

Fresh evidence of the government's desire to continue liberalising the country's economy should come soon with announcements on the planned reform of the insurance sector after

recent talks with OECD members.

Among the restrictions likely to be loosened is the so-called "market needs" test that the government used to prevent new companies, domestic and foreign, starting insurance operations in South Korea.

The government is also expected to announce the phase-out of restrictions on reinsurance business and cross-border insurance.

In addition, South Korean officials said they planned a further increase next year in the 15 per cent ceiling for foreign purchases of South Korean equities, raising it to 18 or 20 per cent. This should help offset the negative impact on the stock market of the disclosure of alleged illicit payments by leading companies to former president Roh Tae-woo as well as bringing the country closer to meeting one of

the conditions of OECD membership.

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Rice breeders in race to beat Asian shortage

The last 12 months have been a worrying time for most of Asia's rice producers. For the first time since the 1949 revolution inadequate harvests have forced China to import foreign rice. Similar luck has prompted Bangladesh, the Philippines and Indonesia to ship in rice from overseas for the first time in more than a decade. As a result international rice prices have more than doubled since January from \$180 (£114) a tonne to \$400.

Specialists at the International Rice Research Institute (IRRI) in the Philippines - pioneer of the high-yielding strains which led to the Green Revolution in the 1970s - say that this year's problems are the clearest signs yet of a widely predicted Asian rice shortage.

Dr Gurdev Khush, head of plant breeding at IRRI in Los Banos, says that Asia will have to produce 70 per cent more rice with the same land resources in the next 30 years just to keep up with population growth.

Dr Khush was part of the team in the 1960s which developed the famous IR6 strain and its descendants which led to the doubling of irrigated rice yields to six tonnes per hectare in much of Asia. As a result rice production easily outstripped population growth for the next two decades. Since 1990 however, the situation has reversed.

"I would say that the challenges facing us now are greater than the ones facing us in the 1960s before the green revolution," said Dr Khush. "Then there was scope for

Fears are growing for food supplies as populations soar and water resources fail to keep up with demand. But Burma, a country once the region's rice bowl, is again exporting. FT writers examine the outlook for Asia's staple food

increasing production by irrigated new land. Now we have to pull off the same feat without any possibility of increasing the total area under rice cultivation."

Between 1995 and 2025 the ranks of the poor in Asia - who typically spend around 60 per cent of their food budget on rice - will swell from 2.7bn to 4.4bn, according to the United Nations.

At the same time the demand for water, which is already approaching unsustainable use levels, will rise dramatically. Rice experts are therefore left with the task of creating higher-yielding hybrids which can thrive on less water.

The most vulnerable areas, say economists, will be in southeast Asia and on the Indian sub-continent where most rice production is under rain-fed rather than irrigated conditions. Rain-fed cultivation pits farmers against the vagaries of the monsoon season and limits them to one harvest a year.

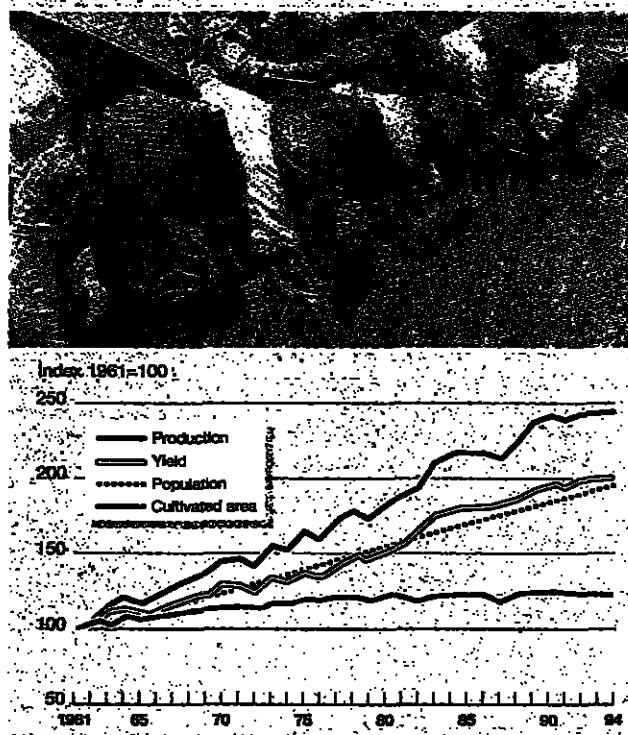
The problems facing Japan, South Korea and most of

China, which are largely irrigated and can therefore produce up to three crops a year, are less urgent, say experts. Japan's rice shortfall in 1993, which led to the first imports in living memory, was caused by the Blast disease which damages the crop in unusually cold weather. The same problem afflicted North Korea earlier this year.

Elsewhere, however, the scarcity of water, the increasing cost of irrigation and growing awareness of the damage which insecticides and other chemicals can do to the environment has, in effect, frozen the scope for increasing the area of land for irrigated rice production. Meanwhile Asia's population continues to expand by more than 2 per cent a year.

"If you look at the scale of the problem it is quite frightening," said Dr Phuc Tuong, a water management expert at IRRI. "The demand for water is

Rice and the Asian shortage it feeds



increasing exponentially as urban populations grow because people in cities consume far more water than those from rural areas. This leaves less water for rice production yet a growing demand for rice.

Popularly known as "super-rice", food specialists around

the region are closely observing the progress of IRRI's latest biotechnological experiments.

According to IRRI scientists, who attempt several hundred cross-breeds every year, the earliest new strain can be developed by the turn of the century. Moreover, another

five years would be needed to spread its cultivation.

"The prototype we are working on would increase irrigated rice yields by 50 per cent to around 10 tonnes a hectare," said Dr Khush. "The most difficult job will be to make the strain disease-resistant. We're genuinely racing against the clock."

Rice experts at IRRI and around the region have rebutted suggestions by various economists that the doubling of rice prices would solve the problem by making rice cultivation more profitable for marginal producers.

The scarcity of land and water would prevent this from happening, they say. In the meantime, as witnessed most recently in the Philippines when rice prices doubled, social unrest would increase.

"The only solution to this problem is to improve the yields of irrigated rice and to improve the efficiency of rice produced under rain-fed conditions," said Dr Mahabub Hossain, an economist at IRRI.

"Relying on the theory that higher prices would lead to higher production is a pipe dream," he said. "Farmers have already reached that ceiling."

Edward Luce

Burma's economic mini-boom helps junta stay in power

Daw Aye Win, a great-grandmother at 78, remembers when, half a century ago, Burma was the world's largest exporter of rice and as the daughter of a miller, she met grain traders from all over Britain's empire in Asia.

"Calcutta, Hong Kong, Singapore, Shanghai sometimes," she recalls. "We fed them all." Decades of socialist mismanagement and despotism ended Burma's hold on the Asian rice market. The government told farmers what to plant, when to plant it and then bought the entire crop at starvation prices. Production suffered and for a number of years the country struggled to feed itself.

But Burmese rice is back. The country is on track to export as much as 1.5m tonnes of rice in the 1995-96 season, up from 1m tonnes in 1994-95, and is aiming to reach its 1994 record of 3.4m tonnes in two years' time.

While that is still modest by world standards (neighbouring Thailand exports about 5m tonnes of rice a year), the International Rice Research Institute believes Burma could supply a significant portion of the extra 10m tonnes of rice annually the world will need in 10 years' time.

Rice is the country's most important foreign exchange earner, and since the government monopolises export of the grain, earnings from the rice

trade fund the purchase of imports such as fuel, construction materials and machinery needed to upgrade the country's creaky infrastructure. The sustainability of Burma's current economic mini-boom largely depends on the continued growth of rice exports.

Rice carries enormous political significance as well. Earnings from the rice trade allow the military junta to keep its 300,000-strong army well equipped: defence accounts for 30 per cent of all government spending and a significant portion of hard currency is spent buying arms. Farmers, who make up about 65 per cent of the population and once formed the backbone of support for the opposition National League for Democracy, might be won over if prices are high and life is getting better.

The country has been able to boost its rice production by following a formula that is applied across many sectors of the economy: free-market incentives combined with a generous amount of coercion.

Mr Than Lone, a farmer with seven acres in the village of Higen, explains that last year the military ordered every family in his area, even those without land, to contribute one person for two months to help build an irrigation system.

"There was no choice. They say it's voluntary but it's not," he says. Although he is opposed in principle, Mr Than Lone is not complaining. As a result of projects such as these, last year Burma increased the amount of irrigated land by 1m acres; the new irrigation in his area allows him to plant twice a year. The government still buys 25 per cent of his crop at half the market price but he can sell the rest on the open market.

"We are not doing so badly," he says. His family has bought a television, which they run on a car battery because his village still lacks electricity.

"Maybe next year we will buy a motor car."

Others are not at all happy. Because the government buys a fixed amount per acre in a specific region rather than a percentage of output, farmers can end up selling much of their production at below market prices if their yields are low. Local military officials, who must meet procurement quotas, force farmers to sow infertile land or second crops where there is not enough water.

The uniformed men ordered me to grow here even though I am a farmer and I knew the land was not very fertile. After giving the government their 12 baskets I only had about 12 baskets left," complains one farmer in Syriam, just across the Bago River from Rangoon.

Government officials say they understand the problem in Syriam and plan to turn much of the area into an industrial park.

Though this system increased the amount of area sown last year by 600,000 acres and the number of acres subject to multiple cropping by nearly 20 per cent, some agricultural economists say the government's forced procurement of rice, combined with the monopoly on exports, is hurting output.

Because the system reduces profitability and therefore denies farmers access to capital that would help them increase yield, the World Bank estimates Burma is losing about 1.9m tonnes, more than 10 per cent of present output.

Outside of Pegu, overlooking his family's 20 acres of land, Mr Sein Win understands this quite well.

"Things are better, a lot better," he says. His eldest daughter is set to enter university, he has started a small garden producing flowers and watermelons and he claims he has no time for politics. But his rice output has reached its limit. To expand he needs more machinery, more fertiliser, more working capital.

"I could get this if the government gave me credit or stopped taking my rice away."

Ted Bardacke

ASIA-PACIFIC NEWS DIGEST

Ozawa may bid to lead party

Mr Ichiro Ozawa, the politician who triggered the end of one-party politics in Japan two years ago, was yesterday considering a comeback. Mr Ozawa, an advocate of a more open economy under clearer political leadership, has emerged as a potential candidate to lead the opposition centre-right New Frontier party.

Now second in command of the NFP, he received the support of 55 members of parliament for the party's first leadership election since its formation a year ago. At least three other possible candidates are waiting in the wings and votes will be counted at the end of this month.

Until yesterday, Mr Ozawa was thought unlikely to seek leadership, preferring to steer policy from behind the scenes as he did in two coalition governments in the 10 months to mid-1994, the Liberal Democratic party's first experience in opposition for nearly four decades. Mr Ozawa, once an LDP powerbroker, precipitated his former party's temporary fall from power by leading a defection. That formed the core of the present opposition group, which has been struggling since to set a more open style of democracy, closer to voters.

His book, *Blueprint for a New Japan*, espoused radical economic and political reforms commensurate with its economic weight. Mr Ozawa is still undecided on whether to stand. He will wait to see if more support develops before making up his mind, NFP officials said.

William Dawkins, Tokyo

Sri Lankan flag over Jaffna

Sri Lanka's armed forces raised the national flag over the captured Tamil Tiger stronghold of Jaffna yesterday, but the rebel guerrillas announced a recruitment drive, signalling the war was not over. The raising of the flag by Mr Anura Kumara Ratwatte, deputy defence minister, symbolically ended nearly a decade of rule over the northern town by the Liberation Tigers of Tamil Eelam. In a ceremony broadcast over state radio and accompanied by 30 minutes of martial music, armed services chiefs and the town's top administrator raised emblems representing the northern province, the three armed services and the police.

The rebel Voice of Tigers radio urged people to enlist in its forces to stop the army "before it is too late". It urged Tamils worldwide to join the rebel movement.

Reuter, Colombo

Korean accord on Tumen River

Five countries, including both North and South Korea, will today establish an intergovernmental commission to promote economic development in the Tumen River basin in north-east Asia. The region of some 150m people has long been seen as offering growth possibilities because of its access to Siberian resources and nearness to the large markets of Japan and South Korea.

Formed under the aegis of the United Nations Development Programme, the commission will be a forum for cross-border consultation on infrastructure, especially transport, and on ways to speed trade through harmonising customs regulations. Other commission members are China, Russia and Mongolia.

Peter Montagnon, Asia Editor

New Asian newspaper starts

Asia Times, the region's newest daily business newspaper, is due to hit the streets of Hong Kong, Singapore and Bangkok today. Mr Soudhi Limthongkul, its publisher, says he is willing to put up to \$60m (£38.4m) of his own money into the venture. Mr Soudhi, 48, a Thai of Chinese extraction who heads the Manager publishing group in Thailand, publishes newspapers in Bangkok as well as Asia Inc, a monthly business magazine, in Hong Kong. His company has become one of the largest contract printers and trade press publishers in Asia, and he has interests in satellite television and telecommunications.

"What I am trying to do with this newspaper is reflect an Asian point of view. There is more to a newspaper than just facts; there is background and understanding of the region," Mr Soudhi says. Mr John Shidlofsky, director of the Asian Centre for the Freedom Forum, a US media foundation, said: "It is going to be a hard sell. There has been a proliferation of business titles in east Asia."

Foreign Staff

Philippine inflation stays high

Philippine inflation remained in double digits for the third consecutive month in November, prompting fears it might become a long-term problem. At 11 per cent last month, the headline rate was unchanged from October but 3.6 points higher than the rate recorded in November 1994. Government economists yesterday blamed the high rate on continuing rice shortages and other commodity bottlenecks which have "temporarily" boosted prices.

Edward Luce, Manila

First Nepalese CO for Gurkhas

For the first time in its 180-year history, Britain's battalion of Gurkha soldiers is to be led by one of its own, a Nepalese officer. Hardy Gurkha soldiers, recruited from Nepal, have long served the British forces, but always under a British hand. Today Lt Col Bishay Kumar Rawat, in the Gurkhas since 1972, takes command of the 1st Battalion the Royal Gurkha Rifles in Hong Kong.

Reuter, Hong Kong

IN 1995, HOW DID AMERICAN AIRLINES, HEWLETT-PACKARD, HITACHI, INTEL, MADGE NETWORKS, UPS AND WHIRLPOOL, TO NAME BUT A FEW, ACHIEVE COMPETITIVE ADVANTAGE IN EUROPE?

MORE IMPORTANTLY, HOW CAN YOU ENSURE THE SAME SUCCESS FOR YOUR COMPANY IN 1996?

Foreign ministers meet deadline for accord on enlargement compensation to US, Canada and Australia

EU pact heads off threat of trade action

By Lionel Barber in Brussels

The European Union has reached a political accord on compensation to its main trading partners - the US, Canada and Australia - to cover the accession of Austria, Finland and Sweden to the EU last January.

The deal appears to head off a threat by the US and Canada to file a complaint with the World Trade Organisation in the absence of an adequate compensation package by the

end of the year. Under WTO rules, trading partners are entitled to compensation for any increase in tariffs as a result of the expansion of a customs union such as the EU.

Agreement was reached during a meeting of EU foreign ministers in Brussels on Monday night. It covers products including semiconductors, chemicals, rice, pet food, cherries and seafood.

The package is subject to ratification by the French parliament which must examine the

compensation text in its entirety, said the Commission. The US and EU have been bargaining over compensation terms for almost a year, with Washington arguing that it has lost about \$1.7bn in trade as a result of the Alpine and Scandinavian enlargement.

The deal will serve as a basis for packages with other EU trading partners, including New Zealand, Thailand, Chile and Argentina.

Three EU member states - Italy, Spain and Greece -

objected to the concessions given to the US on rice and almonds.

Contrary to some expectations, the southern bloc failed to extract an explicit pledge of aid to offset loss of EU market share, particularly in farm products.

Instead, ministers agreed a set of declarations which provides possible remedies when specific sectors claim injury as a result of the compensation package.

A separate deal on grain and

rice provides for review and consultation on the implementation of the EU's reference price system used for all grains.

During the first six months of 1996, the EU will change the reference price used for barley and rice imports to reduce tariffs. It will also develop a "cumulative recovery system" to track the tariffs charged on rice and repay any overcharging.

Ministers agreed changes to the barley import structure, while the corn and wheat rules

will stay under review. The agreement also provides for bilateral talks on wheat gluten imports by the US.

On semiconductors, the EU has pledged to accelerate tariff cuts agreed in the Uruguay Round of the General Agreement on Tariffs and Trade.

Tariffs which were due to be reduced from 14 to 7 per cent by 1999 will now be cut by 1996. Other tariffs due to be phased out over the same period will also be accelerated to 1996.

WORLD TRADE NEWS DIGEST

Miti tightens export permits

Japan is planning to introduce tighter export controls on military useful equipment. The Ministry of International Trade and Industry is finalising a plan to oblige companies to seek export permits for goods that could be used for making nuclear, chemical or biological weapons.

The plan, to be published at the end of the year and take effect next October, aims to eliminate loopholes in existing internationally agreed curbs on defence sales, such as the missile technology control regime. Some machine tools, centrifuges and semiconductors fall into this category.

Under the new system, already in place in several countries, the government would have the right to tell companies when it thinks their products might have military applications, even if they are not listed in international accords against arms sales. Exports of such products would need government permission. This would apply to sales to all foreign countries, though there will be lighter treatment for countries seen by the Japanese government to be honouring the nuclear non-proliferation treaty.

William Dainkins, Tokyo

UK-Japan import centre plan

An Anglo-Japanese joint venture is to build a \$155m import promotion centre in Kitakyushu in Japan as part of the country's attempts to open its markets to foreign competition.

The Asia-Pacific Import Mart, built on eight floors, will provide space for exhibitions selling areas for companies seeking to introduce foreign products to Japanese consumers. The development is situated in the city's foreign access zone, north of Kokura station, where other projects include an exhibition centre, a separate conference centre and other buildings designed to encourage foreign trade.

Bovis, the construction arm of P&O group of the UK and member of the consortium building the Asia Pacific Import Mart, said that it was expected to be one of a series of developments in Japan aimed at responding to international demands to open up the domestic market to foreign competition.

Kitakyushu had been selected as a foreign access zone because of its deep water container port and large local market. The development is being built for the Kitakyushu Import Promotion Centre, a semi-private stock holding company which has been established to promote the foreign access zone.

Andrew Taylor, London

US aircraft control systems maker Hamilton-Standard, a unit of United Technologies and Nautica of Russia, have begun production of environmental control systems (ECS) for new Tupolev aircraft. The joint venture is developing control systems, which also include systems for monitoring engine performance, for the new generation 214-seat Tupolev-204 and 103-seat Tupolev-94.

Siemens of Germany has reached a DM125m (\$87m) framework agreement to install 500,000 digital phone lines in Moscow by 1998. The client is MGTS, operator of the Moscow city telephone network. About 3.5m analogue lines are to be replaced by digital technology over the next few years. Siemens will install the first 50,000 lines next year. Its market share in Russia is about 20 per cent.

Reuter, Bonn

German tyre maker Continental has signed a co-operation deal with Orban Perkesa of Indonesia to manufacture tyres under licence for the Indonesian market. Orban has a capacity of 1.1m tyres a year which it plans to double in the near future.

Reuter, Bonn

Asean scheme 'would discriminate on imports'

By Guy de Jonquieres

The Asean free trade area (Afta), launched this year by six of south-east Asia's fastest-growing economies, threatens to discriminate against imports from industrialised countries and to impede wider economic integration in the region, according to a study.

The US-based International Food Policy Research Institute said Afta, as currently envisaged, would generate some improvements in the economic performance of member countries. However the benefits would be smaller and more uneven than if the planned liberalisation were extended to the rest of the world on a Most Favoured Nation basis.

Afta embraces the original members of the Association of South-East Asian Nations, Brunei, Indonesia, Malaysia, the Philippines, Singapore and

Thailand. Vietnam, which joined Asean in July, will participate on a limited basis.

The recent study estimated that annual intra-regional trade would rise to \$2.5bn by 2003, or 19 per cent above 1988 levels, if Asean members eliminated all barriers to each other's manufacturing and farm exports.

However, Asean's total world trade would grow by \$2.4bn, or 2.3 per cent. That was largely because preferential liberalisation would lead to lower imports from the industrialised world in every country except Singapore, which already has an open market.

Such an outcome would reduce the gains to Asean economies, because they would be denied opportunities to increase consumption of goods and services at the lowest possible resource cost.

The study said preferential

trade liberalisation would be costly to administer. It could also inhibit wider acceptance of free trade and investment.

If Asean undertook liberalisation on an MFN basis, annual intra-regional trade would grow by \$1.9bn. But the group's total worldwide trade would increase by \$9.1bn, more than three times faster than under a preferential approach.

Multilateral liberalisation would increase real demand in Asean economies by 2.5 per cent, but it would fall by 2 per cent in Singapore. Under a preferential approach, the rise throughout Asean would average 0.5 per cent.

Regional trading arrangements among developing countries: the Asean example. By Dean A. DeLoach. International Food Policy Research Institute, 1200 17th Street NW, Washington DC 20036-3006. Tel: 202-852-5600.

Type of Liberalisation	Freeing trade: possible outcomes for Asean members				
	Trade with the world	Exports to Asean	Exports to industrial countries	Imports from Asean	Imports from industrial countries
Afta plan - selected manufactures	0.89	7.26	-0.11	7.26	-0.19
Afta plan - all manufactures	1.36	11.25	-0.20	11.25	-0.33
Afta plan - all goods	2.29	19.31	-0.39	19.31	-0.41
MFN - all goods	8.47	11.56	-0.39	11.56	-0.50

Afta plan envisages zero tariffs and liberalisation of non-tariff barriers on a preferential basis. MFN Most Favoured Nation basis. The number members of Asean are Brunei, Indonesia, Malaysia, Philippines, Singapore and Thailand.

Source: International Food Policy Research Institute

Growth in global drugs sales at three-year high

By Daniel Green

The strong growth of drugs sales in the US has lifted the rate of growth worldwide to 8 per cent, the highest level for at least three years.

Sales through pharmacies for the world's 10 biggest markets were worth \$102.7bn in the year to September, according to figures from the specialist market research company IMS published today.

This compares with a 5 per cent increase in the first three quarters of 1994 at constant exchange rates.

Sales in the US have led the way with a rise of 10 per cent to \$40.5bn. Sales in the top seven European markets rose 6 per cent to \$39.8bn.

Only the Spanish market, the seventh biggest in the developed world, grew faster than the US. Spanish sales rose 11 per cent to \$3.5bn as the

market recovered from the effects of government spending controls which depressed the 1994 figures.

German sales rose 7 per cent to \$12.3bn following a two year period in which sales growth was depressed by government measures to control healthcare costs.

However, sales in France grew 5 per cent, to \$10.5bn, in spite of government attempts to hold down spending.

The UK continued to be one of the fastest growing markets, from a relatively low base. Sales grew 8 per cent to \$4.5bn.

Italy, which has had among the most stringent government cost control measures imposed in Europe, saw sales rise 4 per cent to \$5.5bn.

Among medical areas, the respiratory drugs sector grew the fastest, with sales up 15 per cent to \$10.3bn.

European companies are strong in the area, especially Astra of Sweden, Germany's Boehringer Ingelheim and Glaxo Wellcome of the UK.

Sales of antibiotics and anti-virus drugs were the next fastest growing, up 14 per cent to \$10.7bn.

Top companies include Roche of Switzerland, Germany's Bayer, SmithKline Beecham of the UK and Eli Lilly in the US.

The two largest sectors of the market registered slower growth rates; sales of heart disease drugs were up 4 per cent to \$14.6bn while digestive system drug sales were up 5 per cent to \$11.5bn.

Both areas are under pressure as big-selling drugs which have been on the market for some time run out of patent protection allowing competition from cut price unbranded versions.



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ERICSSON

THE ANSWER: SIMPLY BY FOLLOWING IN THEIR FOOTSTEPS.

INVESTING FOR SUCCESS

American Airlines, the world's biggest airline, is establishing its multi-lingual pan-European reservations centre in Ireland. It will handle over 2.5 million telephone calls a year and save the company more than \$20 million.

Hewlett-Packard is building a 45,000m² manufacturing plant in Ireland for its new 1,000 person investment project.

Hitachi added two investments in Ireland during 1995: Hitachi Maxell manufacture CD-ROMs and Hitachi Koki manufacture power tools.

Intel located its second wafer fabrication plant in Ireland, bringing total investment to \$2.5 billion, with employment for 4,500 people. It will be the most modern semi-conductor facility in Europe.

Madge Networks, a \$200 million UK producer of network solutions, established its sole European manufacturing operation in Ireland.

UPS established a freephone service for its European operations and three months later was handling over 5,000 calls per day.

Whirlpool's Shared Service Centre now provides internal financial and administration services on a centralised, rather than a country-by-country basis.

OTHER MAJOR INVESTORS IN 1995

ADVENT SOFTWARE
ALCOA/FUJIKURA
AMERICAN POWER CONVERSION
BROWN BROTHERS HARRIMAN
BRÜGMANN GmbH
CAMBRIDGE TECHNOLOGY
COREL CORPORATION
DIGITAL EQUIPMENT
ILLINOIS TOOL WORKS
KAO INFOSYSTEMS
LM ERICSSON
MERRILL LYNCH
NORTHERN TELECOM
RADISSON GROUP
SEAGATE TECHNOLOGY
3COM
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WHY THEY CHOSE IRELAND

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NEWS: THE AMERICAS

A law to make it safe to be wrong

Maggie Urry on a US move to curb law suits against companies

The US Congress is this week expected to pass legislation intended to encourage companies to be more open by curbing so-called frivolous litigation.

According to proponents of the bill, the legislation would end meritless law suits which have plagued companies, costing them millions of dollars in legal fees and settlement costs, and allow them to be more open with investors. Their shareholders would benefit both from the extra information and the savings in legal costs.

Opponents argue that investors defrauded by unscrupulous company directors will be denied a legal route to recover their losses. They call the bill a "licence to lie".

If the bill is passed - both the Senate and the House are due to vote on it this week - President Bill Clinton faces a dilemma over whether to sign or veto it. So far the White House has given no indication which way Mr Clinton is likely to go.

The question is a difficult one for the president. The bill has backing from both Democrats and Republicans, and is supported by a wide range of business associations and some investors.

On the other side are many lawyers who have contributed to Democratic party funds and consumer groups claiming to speak on behalf of millions of small investors. Voters Mr Clinton would not want to alienate less than 12 months from the election at which he will be seeking a second term.

The legislation is intended to reform part of the Securities Exchange Act of 1934, which was passed in the aftermath of the 1929 stock market crash. That law was supposed to protect investors from stock price manipulation by promoting a philosophy of full disclosure through the Securities and Exchange Commission, the federal agency which regulates the industry.

Sixty years later, though, many companies are wary of offering any information to investors beyond the requirements of the filings made with the SEC.

Directors fear that if comments about their company's future performance prove incorrect, they could be sued by investors. Often a sharp fall in a company's stock price generates class-action law suits, sometimes within hours.

Companies attacked in this way find the defence process so

expensive they prefer to settle even if a case has no merit. Meanwhile the plaintiffs' lawyers pocket a third of the proceeds, with many investors receiving nothing. The companies at greatest risk of receiving a suit are those in the fast growing industries, such as computers and biotechnology, where it is hardest for directors to forecast prospects accurately and where share prices are most volatile.

Mr Bruce Vanyo, head of the litigation department at Wilson, Sonsini, Goodrich & Rosati, a San Francisco law firm which advises many high-tech companies, says: "I advise clients all the time, 'do not make predictions - there is no profit in it'." If the legislation goes through, he says, "my advice will change".

The centrepiece of the legislation is a so-called "safe harbour" for predictions. Companies would have to label a statement as being a prediction and explain the assumptions and risk factors which could cause the actual result to be materially different. So long as they did that, they would be free from liability. This largely enacts a principle, known as "bespeaks caution", which has developed over the years through case law.

Other provisions would free companies' advisers, such as accountants and underwriters, from "joint and several liability" and from the charge of "aiding and abetting" fraud. Currently, if a company losing a law suit cannot pay, then plaintiffs turn to the deep pockets of its advisers for redress. It is not surprising, therefore, that the large accounting firms and their insurers are in favour of the bill.

Mr Harris Miller, president of the Information Technology Association of America, which represents companies in the computer software and information processing industry, believes the legislation would be beneficial for his members and their shareholders. High-tech companies have been nervous of going public, he says, and have found it difficult to recruit directors because so many are scared of being personally liable.

"The current system discourages businesses from being as open as they would like to be," Mr Miller explains. "There is no filter to keep out frivolous law suits."

Mr Louis Thompson, president of the National Investor Relations Institute, also thinks the legislation would lead to greater disclosure by companies. His organisation is an advocate for disclosure, he says. But more than a quarter of its members have been sued at least once in the past five years.

The proponents of the bill won an important victory

when Mr Arthur Levitt, chairman of the SEC, came out in favour of the safe harbour provisions. After circulating earlier drafts, Mr Levitt welcomed the final version, saying "it should encourage companies to provide valuable forward-looking information to investors" while also limiting "the opportunity for abuse."

Also in favour is the National Association of Investment Clubs, which claims to speak for hundreds of thousands of small investors.

The opponents still have some forceful arguments on their side. Ms Barbara Roper, director of investor protection at the Consumer Federation of America, fears the bill will make it much more difficult for legitimate victims of fraud to recover their losses. She says the legislation goes far beyond what would be necessary to curb frivolous law suits.

Ms Roper argues that some of the bill's provisions - such as a three-year time limit on filing suits, the change to joint and several liability and aiding and abetting - would seriously reduce the chances of investors recouping losses.

She points to the example of Lincoln Savings & Loan, the thrift run by Mr Charles Keating, who is serving a 13-year jail sentence for fraud, after the S&L collapsed in 1989. Investors in high-yield bonds sold by the thrift's parent lost their money, but sued and won \$262m. Had the new law been in effect then, Ms Roper asserts, they would only have recovered \$18m.

Mr Clinton risks displeasing powerful groups whichever way he goes. The chances are that he will not veto it, and the reform will go through.

If it does, the story is unlikely to end there. Mr Miller, for one, is already looking for further reform. For instance, to extend the safe harbour provision to flotations.

The bill would also extend the safe harbour provision to flotations.

Argentine jobless policy attacked despite decline

By David Pilling in Buenos Aires

The number of jobless in Argentina, which reached an unprecedented 18.6 per cent earlier this year, has dropped by an estimated 2 percentage points, according to Mr Eduardo Duhalde, the cabinet chief.

Mr Duhalde said yesterday the government had "positive information" from Indec, the government statistics bureau, that preliminary results of its October unemployment survey showed a jobless rate of around 16 per cent. He warned, however, that "this is not a problem with a rapid solution or one that can be solved by the state alone".

Some pressure will be removed from President Carlos Menem's administration if the dip in unemployment is confirmed when Indec releases official results later this month.

The government's record on unemployment, which has trebled since 1991, has provoked bitter criticism from the opposition, the Catholic Church and even prominent members of the governing Peronist party. The opposition has questioned the validity of the new results, which measure the number of people actively seeking work. Mr Rodolfo Terragno, recently elected president of the Radical party, said the figures could be explained by the fact that many people had given up searching for

work because of scarcity of jobs.

"Manipulation of the unemployment figures is useless," said Mr Terragno. The basic fact was that "one in five people don't have a job or social security, which means we have a problem on a scale that we cannot ignore", he said.

Recent riots in the poor north-western province of Jujuy, where state workers were demonstrating against proposals to pay half their wages in bonds, were not an isolated incident but part of a profound social crisis, Mr Terragno said.

It suited the government to have high unemployment, he said. Without desperation in the labour market, it would be impossible for the governing Peronist party to achieve its goals of wage deflation and the "flexibilisation" of labour through reduction of union power, he said.

Mr Duhalde, whose government has promised to "pulverise unemployment", argued that the jobless rate would fall further, although slowly, as the economy pulled out of recession and affordable credit revived. There were already signs the economy was recovering and the official target for 1996 growth of 5 per cent was achievable, he said.

Many private economists, most of whom put growth for next year at 2-3 per cent, predict unemployment will stay at record levels for several years.

Brazilian human rights activist seeks asylum

By Angus Foster in São Paulo

The Brazilian government's first human rights awards were marred yesterday when one of the prize-winners announced he planned to leave the country after receiving anonymous death threats and constant harassment from the Rio de Janeiro police.

Mr Caio Ferraz, a sociologist living in the Rio shanty town of Vigário Geral, yesterday wrote to embassies including those of the US and UK asking for help. Mr Ferraz, whose work has won widespread support from human rights groups, hopes to spend several months abroad with his family until his complaints can be investigated.

Vigário Geral was the site of

a 1993 massacre of 21 residents, apparently innocent victims of a drugs war between Rio police and local traffickers. A total of 31 Rio police were charged in connection with the massacre but still await trial.

Following the massacre, Mr Ferraz opened a "house of peace" in the shanty town, with classes ranging from computing to dance studies. But relations with the police have remained strained. The house has been invaded several times by police and its telephone lines are regularly cut.

Two weeks ago Mr Ferraz went into hiding with his family and was taken by federal police to Brasília, the capital, for the awards, which were delivered by President Fernando Henrique Cardoso.



Ernesto Samper: lawyer says he would prefer an open debate to clear any doubts about his involvement

Colombia to rule soon on Samper drug fund claims

By Sarita Kendall in Bogotá

A congressional commission responsible for investigating Mr Ernesto Samper, Colombia's president, is due to decide this week whether he should be formally accused of funding last year's presidential election campaign with Cali drug cartel contributions.

Mr Hayne Mogollon, who was responsible for collecting the evidence, is expected to advise the accusations commission to drop the matter for lack of proof. The attorney general, Mr Orlando Vasquez, has said the evidence does not point to direct involvement or responsibility on the part of the president.

However, independent politicians are seeking an open debate in congress. Mr Vasquez and several congressional representatives have been named in drug money investigations and Mr Mogollon was associated with Mr Samper's campaign.

Mr Samper's lawyer says the president would prefer an open debate to clear any doubts about his involvement.

Mr Samper appears not to have been irreparably damaged

by the campaign funding question. Polls show that, although half of respondents think the president knew about illegal drug contributions, more than 60 per cent do not think he should resign.

Meanwhile, the Liberal party's campaign treasurer, Mr Santiago Medina, who has provided lengthy statements and evidence on Cali cartel contributions, was moved from jail to house arrest on Saturday in recognition of his collaboration with the prosecutor general.

Mr Medina, who was arrested in July, has said under oath that cartel contributions were made with the explicit approval of Mr Samper. His testimony led to the resignation of Mr Fernando Botero as defence minister.

The government hopes public interest in the affair will wane during the three-month congressional recess starting on December 16. Business and economic organisations, which had been seriously critical of the president and the effect of the political crisis on the economy, have toned down their comments. Mr Samper is also expected to make changes to his cabinet, which will help divert public attention.



Newt Gingrich: denounced allegations as 'totally phoney'

Campaign fund allegations divert Gingrich

By Nancy Dunne in Washington

Just nine days before the deadline for the conclusion of budget talks, the leader of the Republican "revolution", Mr Newt Gingrich, the House Speaker, has been distracted by difficulties over alleged campaign finance violations.

The Federal Election Commission last week released thousands of pages of documents which indicated that Gopac, the Republican political action committee once headed by Mr Gingrich, illegally helped finance his re-election in 1990 as well as those of Republicans across the country.

The FEC has taken Gopac to court, claiming the group was involved in federal elections - including helping to support Gingrich's 1990 re-election campaign - at a time when it said it only supported local and state candidates.

Political action committees (PACs) are fund-raising groups which give to several candidates who support their causes. In 1993-1994, individuals contributed \$402.5m for congressional races, while PACs contributed \$179m.

Groups which support national candidates are subject to federal election laws. They must fully disclose their donors and limit contributions to \$5,000 per election per candidate. In the US, individual campaign contributors can give only \$1,000 directly to each candidate.

The FEC said that while Gopac was allegedly a PAC fin-

ancing only local and state races, it provided Mr Gingrich more than \$250,000 in hidden support for his 1990 race. Mr Gingrich won the race by only 974 votes, spending \$1.5m compared with \$330,000 spent by his opponent.

The documents released by the FEC lay out Gopac's strategy for taking over Congress and even for a presidential bid next year by Mr Gingrich. The list of donors, kept secret until the FEC forced their disclosure, includes a number of individuals seeking help in Washington.

Mr David Bonior, the House minority whip, has renewed calls for a special investigator to look into allegations of legal and ethical lapses by the speaker. Mr Gingrich has denounced the FEC allegations as "totally phoney".

The speaker already faces six complaints before the House ethics committee, which investigates alleged violations of House rules and standards. Among other things, critics allege that the speaker, by using tax-exempt money to underwrite a college course, was involved in partisan activity designed to produce Republican volunteers.

The committee can bring to the House floor recommendations to reprimand or expel members accused of breaking House rules. With five Republicans and five Democrats, the committee has been in deadlock repeatedly over the hiring of an outside counsel to investigate the charges and any new ones which might grow out of the FEC revelations.

AMERICAN NEWS DIGEST

Tax forms to be filed by phone

Up to 23m US taxpayers will be eligible to file their 1995 tax returns next year in a 10-minute telephone call, the Internal Revenue Service (IRS) said yesterday. A programme started in 1992 and conducted in 10 states this year will be extended nationally for taxpayers who use the 1040EZ, the least complicated tax form. The process, dubbed TeleFile, will be completely paperless. About 3m of the 23m eligible taxpayers are expected to take advantage of the program, up from 650,000 this year.

Ms Margaret Milner Richardson, the IRS commissioner, said telephone returns contained fewer errors, were easier to process and saved taxpayers time and trouble. "Filing taxes doesn't get any easier than this," she said. Taxpayers will end their calls by using an IRS-supplied personal identification number that will substitute for the signature required on paper forms. Agencies, Washington

CNN faces news challenge

Capital Cities/ABC said that its ABC television network division would launch a 24-hour news channel in 1997 in competition to CNN.

Mr Robert Eiger, CapCities/ABC president, said yesterday the company would place its full resources behind the new station, which will compete directly with Turner Broadcasting System's all-news Cable News Network. "Our commitment to this venture is absolute and it is for the long term," Mr Eiger said. The service would provide continually updated news and live coverage as well as locally produced news broadcasts. Reuters, New York

Venezuelan election tension rises

Police fired tear gas to disperse hundreds of protesters in Maracaibo, Venezuela's oil capital, as tension rose because of a delay in announcing the result of a tight election race for governor, radio and television reports said yesterday.

There were no immediate reports of injuries and the incidents were apparently limited to the commercial district. Maracaibo, capital of the oil-rich Zulia state, was the second city in which disturbances broke out after nationwide regional elections on Sunday. Troops patrolled Barquisimeto, in neighbouring Lara state, after reports of looting. Authorities said results of the elections to choose 22 governors, 330 mayors and thousands of local councillors had been delayed by technical problems. Reuters, Caracas

Volcano threatens Montserrat

About 4,000 people, a quarter of the population of Montserrat in the Leeward Islands, have been moved to temporary accommodation for the second time in five months following renewed fears of a volcanic eruption.

They were relocated to the north of the island from their homes in Plymouth, the capital. Seismologists reported that magma was rising to the crater of the Lang Soufriere volcano. Explosions and volcanic dust in August forced thousands to move to the island's north. Government officials said the people would be sent to neighbouring Antigua if it became necessary to evacuate the island.

■ Brazil's inflation as measured by the Economic Research Institute fell to 1.17 per cent in November, from 1.48 per cent in October, an official said. Reuters, São Paulo

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Galileo probe nears its fiery finale

Clive Cookson on the last phase of a \$1.4bn mission to the solar system's largest planet

The most protracted and accident-prone mission in the history of unmanned space exploration faces its moment of truth tomorrow, after a 3.7 billion kilometre journey to Jupiter. Whether scientists can solve any of the mysteries of the largest planet in the solar system will depend more than anything on whether a temperamental tape recorder works tomorrow.

The Galileo spacecraft - designed in the 1970s, built in the early 1980s and launched in 1989 - is scheduled to fire its main engines to go into orbit around Jupiter.

At the same time, Galileo's atmospheric probe, which separated from the main spacecraft last July, will plunge into the turbulent Jovian atmosphere. It will then drift down by parachute through the orange-coloured clouds - measuring their temperature, pressure, electrical activity, chemical composition and wind speed - until, after an hour or so, the probe burns up in the intense heat of the lower atmosphere.

The probe (built for Nasa, the US space agency, by

Hughes Space and Communications of Los Angeles) will be the first man-made instrument to make direct observations of the weather on Jupiter, where gigantic thunderstorms and hurricanes are believed to rage with winds as fast as 500kph.

Scientists are keen to discover whether the Jovian weather is essentially similar to that on Earth, with exceedingly large, or whether it operates on different principles. They want to know why Jupiter seems to have one permanent storm - the Giant Red Spot - and why it has a banded appearance.

Even the atmosphere's composition is uncertain. According to one scenario, the probe will first encounter clouds of frozen ammonia below -100°C. As it drifts down and the temperature rises, these will be replaced by clouds of ice crystals and water droplets like those on Earth. Then it will sink into a hot mixture of helium and hydrogen under high pressure.

Professor Fred Taylor of Oxford University, whose research team has an instrument on the probe, said: "It is

a toss-up whether it gets crushed or baked first. We expect it to survive up to about 20 times the atmospheric pressure of Earth but by then the heat might have destroyed it."

The spacecraft's main radio antenna, intended to transmit its observations back to Earth, jammed irrevocably in 1991 when mission controllers at Nasa's Jet Propulsion Laboratory in California tried to

Much depends on whether a temperamental tape recorder works tomorrow

unfurl it - the most serious of a long series of mishaps in the 20-year history of Galileo.

The craft was at first designed for a 20-month flight direct to Jupiter after a launch from the space shuttle in 1982. Various problems delayed the launch until 1989 when the Challenger disaster forced the whole project back to the drawing board.

Galileo was given a smaller motor, for safety reasons, and eventually launched from the shuttle in 1989 on a long spiral route that used the gravitational pull of several planets to accelerate it towards Jupiter.

When the scientists realised that the main antenna was useless, they came up with an alternative strategy. They decided to record the data on the craft's tape machine and then to transmit it from its small navigational antenna. And they reprogrammed Galileo's on-board computer with new "data compression software" so that the information could be stored more efficiently and transmitted with far fewer electronic "bits".

Last October, they tested the recorder - and it got stuck on rewind. Part of the tape was ruined but, amazingly, the machine itself has recovered. Nasa expects to be able to use it tomorrow to record the data transmitted from the atmospheric probe.

Then, if all goes well, the same system will be used over the next two years to store and transmit pictures and scientific observations made by Galileo

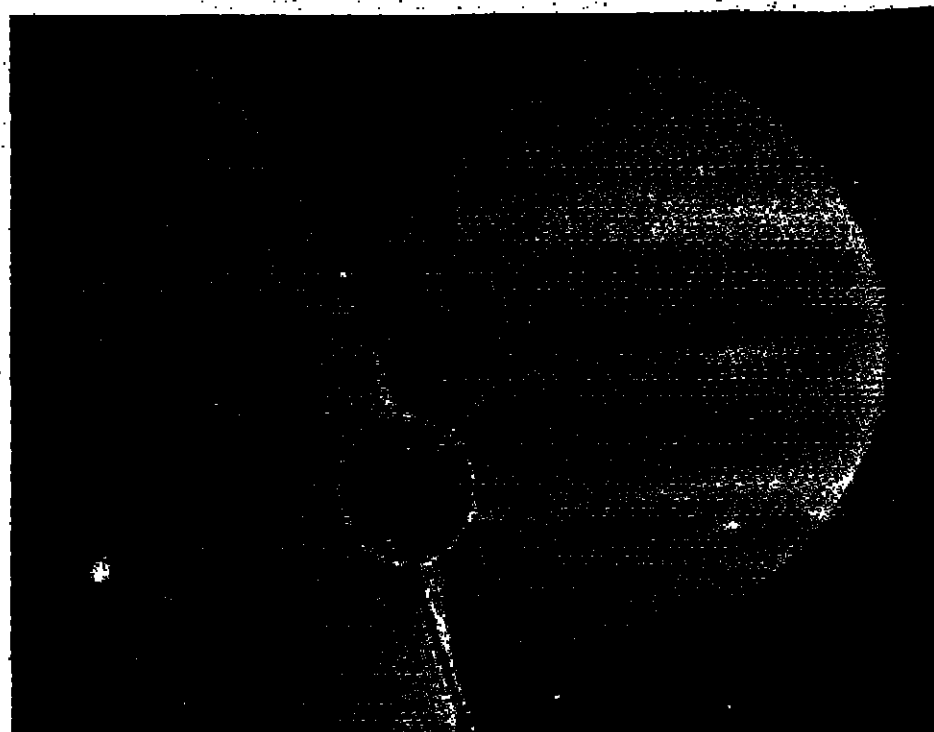
as it orbits Jupiter and inspects several of its moons.

If the large antenna had not failed, the scientists would have received about 50,000 images from Galileo. If the tape recorder works, they may still get 2,000 images. If it gives up too and they have to rely on spare capacity in the computer's electronic memory, they will be lucky to get 150 images.

One consequence of the main antenna failure is that the scientists will have to wait several weeks or even months to discover whether Galileo has made any worthwhile observations.

Even if everything fails and Nasa hears nothing more from Galileo, the mission will not be a total wash-out. It has already sent back valuable observations on the way to Jupiter, including close-up views of asteroids (rocky micro-planets orbiting the sun between Mars and Jupiter) and the only direct pictures of the Comet Shoemaker-Levy hitting Jupiter last year.

However, the observations en route do not come close to justifying the \$1.4bn that Nasa has devoted to Galileo. Some



An artist's impression of the Galileo spacecraft on its approach to Jupiter.

spectacular pictures of Jupiter and its moons, plus good information about the Jovian weather, will be needed to persuade the American public and politicians that their money was well spent.

Nasa's critics still mention frequently the total loss of its

\$1.4bn Mars Observer craft in 1993, when they argue that the agency remains too closely attached to risky mega-projects. They say it should turn to a new generation of far simpler and cheaper missions costing no more than \$150m each. Whatever happens tomorrow, however, Galileo will not be the last of the space dinosaurs. Nasa and the European space agency, Esa, are committed to a joint project, called Cassini, to explore Saturn, the planet beyond Jupiter. This is scheduled for launch in 1997 and arrival in 2004.

INTERNATIONAL NEWS DIGEST

Unita blow to Angola peace

Angola's fragile peace accord was dealt another blow when the Unita rebel movement said late on Monday it would no longer take part in the disarmament of its forces in response to an offensive by government troops.

Unita said it had decided to immediately stop the "quartering" of its troops in United Nations assembly areas under Angola's November 1994 peace accord forged in Lusaka.

Under the accord, quartering areas are assembly camps where Unita troops are to be disarmed and processed before they are demobilised or absorbed into the Angolan army.

Unita said it had decided to "re-evaluate the whole application process of the Lusaka protocol".

Unita accused government troops of occupying several areas of the country in violation of the accord aimed at ending nearly two decades of civil war.

Despite the peace accord, Unita and the government are deeply suspicious of each other and there have been dozens of ceasefire violations, although mostly on a limited scale.

Several thousand UN peacekeepers are helping underpin the peace in Angola, where hundreds of thousands of people were killed and millions displaced by the war which erupted on independence from Portugal in 1975.

Reuters, Luanda

Austria enters bid for UN body

Austria is to press the United Nations to locate its planned nuclear test ban treaty organisation in Vienna, once the treaty has been finally negotiated in Geneva next year.

The new body - the Comprehensive Test Ban Treaty Organisation - will be established by the treaty and should create up to 250 UN posts.

This would roughly equate with the 239 UN posts which will be lost in Vienna as a result of the withdrawal by the US from the United Nations Industrial Development Organisation next year and consequent budget cuts of 22 per cent.

Mrs Benita Ferrero-Waldner, Austria's foreign secretary, said Vienna was as yet the only candidate to house the organisation and could offer it synergy with the International Atomic Energy Agency, a UN body with 2,200 staff, which is already based in Vienna. Unidlo employed more than 13,000 staff at peak and made a substantial impact on the local economy with jobs and spending power. It will drop to nearly half that number after losing a quarter of its funding through the US withdrawal.

Mrs Ferrero-Waldner also announced that Austria would set up and pay for an investment promotion office in Vienna to help Unidlo find private sector investors for projects and ventures in developing countries.

Jan Hamilton, Foreign, Vienna

Kazakhstan chooses senators

Local and regional lawmakers voted yesterday in elections for Kazakhstan's Senate, the upper house of parliament in the Central Asian country.

The former Soviet republic has been without a parliament since March, when President Nursultan Nazarbayev dissolved the old parliament, saying its election had been invalid.

Mr Nazarbayev has been ruling by decree pending new elections. Such virtual one-man rule has become the norm in the former Soviet Central Asia since the republics broke from Moscow in 1991.

Most of the 48 Senate seats were uncontested; there were 49 candidates, and only six regions registered more than one candidate.

Voting is by secret ballot at regional conferences and, in the capital of Alma Ata, at a city conference of electors.

The election was supervised by about 100 foreign observers, including the Organisation for Security and Co-operation in Europe, the European Parliament and other international organisations.

Elections to the lower house of parliament are scheduled for Saturday, the Itar-Tass news agency said.

AP, Alma Ata

Human rights body is launched

A new international body to promote and protect human rights and safeguard the independence of judges and lawyers around the world was launched in London yesterday by the International Bar Association. President Nelson Mandela of South Africa will be the honorary president of the IBA Human Rights Institute which will be funded by IBA members through a £20,000 (\$76,700) donation from the association.

The institute's objectives are: the promotion of human rights under a just rule of law; the safeguarding of the independence of judges and lawyers; and the dissemination of information on human rights and judicial independence worldwide.

Robert Rice, London

Inflation-hit Sudan raises wages

Mr Abdalla Hassan Ahmad, Sudan's finance minister, yesterday announced a 53 per cent increase in wages from January.

The official Sudan News Agency quoted Mr Ahmad as saying that the government was increasing wages to meet price increases and a rise in the rate of inflation that has hit people living on fixed incomes or government salaries.

The announcement came one day after the minister admitted the government had failed to bring down the annual inflation rate to 45 per cent. He said inflation had risen from 54 per cent last July to 71 per cent in October.

Another measure to alleviate the rise in the cost of living was an agreement with the Sudanese Workers' Trade Union Federation to provide funds to purchase sorghum for the workers' education, health and water services, the minister said.

Reuters, Khartoum

Gore fails to rule out Nigeria sanctions

By Roger Matthews in Johannesburg

The US has not ruled out oil sanctions against Nigeria, Mr Al Gore, the vice-president, said yesterday after talks with President Nelson Mandela in Pretoria.

But he said any effective action would have to be multilateral. "We believe that for any option to be effective it must be multilateral, and I do not think there is any disagreement on that score between our two countries," he said.

Mr Mandela last month called on President Bill Clinton to impose oil sanctions following the execution of nine minority rights activists in Nigeria. During talks with Mr Gore yesterday, Mr Mandela again emphasised the need for more effective action against the military regime. "I gave Mr Gore a list of the problem areas, and Nigeria is one of them," Mr Mandela said.

The US effort to maintain a united front with South Africa on the Nigeria issue came during the second meeting of the bi-national commission inaugurated in Washington last year.

Although marked by agreements on issues involving technology, energy and transport, the two ministerial delegations appeared to have made little progress in resolving differences on trade and arms sales.

Mr Gore, who also held talks with Mr Thabo Mbeki, the deputy president, described the two countries as "sister nations". He said they shared a common vision and had both been forged out of similar histories marked by racial intolerance and division.

It was left to Mr Ron Brown, the US commerce secretary, to raise the problem of trade-marks which, he said, needed to be tackled urgently. Mr Brown said more than 200 US companies had invested in South Africa, but warned that a bigger American presence could be in jeopardy unless the trademark issue was resolved.

He was referring particularly to the legal wrangle over the use of the name and logo of McDonald's, the US fast food chain, which last month opened its first two outlets in South Africa.

McDonald's has been taking legal action against two South African businessmen who have been trading under the McDonald's name and successfully defended their right to continue in a supreme court action in October.

In that action the judge ruled that McDonald's had not registered its name in South Africa for the past five years, and had therefore forfeited the right to use it. Under the law, as it then stood, South African companies had the right to apply for a trademark that had not been renewed for five years to be struck off the register and replace it with their own.

McDonald's has appealed. However, there was no official comment from US or South African officials on moves to resolve the conflict over Armarcor, the South African arms procurement company, which in 1991 was indicted in the US for breaking its arms embargo. The US is demanding payment of a \$37m fine and the right to place inspectors in Armarcor plants.

The new South African government argues that it is being punished for crimes committed by a previous regime.

Iran scorns US plan to step up sanctions

Iran yesterday poured scorn on US plans to tighten economic pressure by imposing a secondary boycott, saying it would neither harm Tehran's petrochemical industry nor restrict access to foreign technology.

Reuters reports from Tehran. Mr Ahmad Bahgozar, deputy oil minister and president of the state-owned National Petrochemical Company (NPC), said companies from third countries were devising ways

to avoid being penalised by Washington for trading with Iran.

"These new policies will not do much. They don't have practical applications, because during the past 17 years after the Islamic revolution we have learned how to live with this American problem," he said.

"There are many other technical and science centres in the world, especially in petrochemicals. Among the seven major

industrialised countries, we have problems with only one."

Earlier this year, Washington banned US companies from trade and investment in Iran.

Now the US Congress is due to discuss a bill to introduce sanctions against companies from third countries that export oil-related technology to Iran. The proposed curbs would ban imports into the US of such companies' products and forbid US companies from

doing business with them.

Washington introduced the curbs to retaliate against what it called Iran's sponsorship of armed opposition to the Middle East peace process and alleged wide-ranging threats to US interests worldwide. Iran rejects the charges.

Mr Bahgozar said an average of 10 foreign companies were competing for each of the five expansion projects planned by the company as joint ventures before 2000 at a total cost of \$3.3bn (\$2.08bn).

Iran was now negotiating the first direct foreign investment in the hydrocarbons sector since 1979 with Asian and European companies, and officials were drafting laws to allow foreign participation of up to 49 per cent.

Mr Bahgozar said US sanctions had no political or economic justification. They were linked to domestic politics.

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NEWS: UK

Rail regulator warns of post-sale decline

By Bromwen Maddox

Britain's rail regulator yesterday warned that failure by the government to maintain adequate rail subsidies after privatisation could set the UK rail network on a downward spiral of declining revenue and investment.

Mr John Swift said if government subsidies to the new train operating companies were to be squeezed, fares might be raised in response with a resultant sharp fall in passenger numbers. At that point taxpayers might resent continuing to pay any subsidies to a network which was being

used by ever fewer passengers and political pressure might cause government funding to be cut further, he suggested.

Mr Swift is responsible for the regulation of Railtrack, the company which owns the track and signalling operations of the former British Rail. Unlike most other utility regulators, Mr Swift has been appointed well ahead of the expected privatisation, and has been closely involved in setting the charges which train operators will pay Railtrack.

"The regulator is not there to guarantee the Conservative Party a certain amount [from the flotation of

Railtrack]...or to enable the Treasury to finance tax cuts, just to make the flotation possible," he said.

Most of the contentious issues in the run up to the sale of Railtrack and franchising of the train operations arise from the difficulty of privatising an industry which is making an overall loss. The long term level of subsidies has proved a particularly thorny issue.

According to Mr Swift, "the government has not come to terms with the fact" that it is required by privatisation to commit itself to subsidies more explicitly and for a longer period than if Railtrack had remained

in the public sector. "The taxpayer is taking on a larger burden than was explained at the time of the railways bill", he said.

Unlike water, gas and electricity, many rail services were not essential facilities, he argued. "The rail services into London are essential, but not intercity and regional ones," and sharp fare rises could cause people to switch to cars or buses, he said.

In the short term, Railtrack would be insulated from such swings in passenger numbers by its fixed contracts with train operators. But in the longer term, said Mr Swift, "its revenues are inevitably linked with the for-

tures of people paying for track access."

Mr Swift said he has not underestimated the scope for efficiency gains in Railtrack. He believes that Railtrack was "joined" by his decision to cut access charges for passenger services by an average of 8 per cent in real terms in 1995-96 compared to 1994-95, and by 2 per cent a year in real terms for five years. In other utilities, unexpected efficiency gains have contributed to steep profit rises and intense public criticism.

In the long term, he would like to see access charges vary to reflect peak and off-peak demand.

Safety watchdog sees need for 'extra vigilance'

By Charles Batchelor, Transport Correspondent

The complexity of the new railway structure which is being created by privatisation will call for extra vigilance to maintain safety standards, the Health & Safety Executive - Britain's workplace safety watchdog - warned yesterday.

Safety standards were kept up during the railway's first year of operation under the

new arrangement but there could be no reason for complacency, said Mr Frank Davies, chairman of the Health and Safety Commission.

"The new structure is more complex and there are many more interfaces than before," he said. "In these changed circumstances it is essential that there is cooperation between all parties and good planning is absolutely vital."

The HSE has increased the number of inspectors by 50 per

cent to 38 to take account of the increased complexity of the railway.

The HSE's railway safety inspectorate is currently carrying out a review of the use of contractors made by Railtrack, owner and operator of track, signalling and stations.

The number of significant train accidents, those potentially the most dangerous to passengers, fell by eight to 110 on the main line network though if numbers on metro-

politan railways such as the London Underground are included they increased from 143 to 151.

The total number of people killed, excluding trespassers and suicides, rose by two to 42. Fatal accidents to passengers increased by one to 17 while staff killed rose from eight to nine. Thirteen people using level crossings were killed, one fewer than last year.

The total number of train accidents, including collisions,

derailments and fires, fell by 70 to 907. A programme to install central door locking led to a reduction in the number of people killed falling from train doors to five from eight the year before.

Trespassing on the railway led to 254 deaths, including 120 suicides and six children aged under 16. The year before 262 people died, including 141 suicides and eight children under 16.

The number of incidents of

trains passing signals at danger fell by 75 to 830 while the number of trains running into buffers decreased from 31 to 21. Sir George Young welcomed the report as proof that the newly structured railway was safe and serious accidents were relatively rare.

But Mr Brian Wilson, Labour transport spokesman, described it as "a deeply depressing warning of what lies ahead if fragmentation of the railways continues."

UK NEWS DIGEST

Part-time staff lose first round of legal contest

Part-time employees who brought test cases in which they sought backdated benefits from occupational pension schemes yesterday lost the first round of their multi-million pound compensation claim.

An industrial tribunal turned down claims lodged on behalf of 60,000 employees by the Trades Union Congress, which had argued that employers who barred part-timers from pension schemes could be guilty of indirect sex discrimination.

The TUC, which had estimated that compensation could amount to £95m (£146.3m), said it was urgently considering an appeal against yesterday's decision.

The 37-page ruling by the tribunal, which had sat in Birmingham, said it was not possible for the part-timers to claim any pension beyond the two-year period already established. Mr John Monks, TUC general secretary, said part-timers would feel frustrated and angry about the decision. "The TUC is determined that employers should not be let off the hook for past discrimination and we know that part-time workers will want us to carry on their fight for pensions justice."

"The TUC is considering an appeal to take these claims forward to the Employment Appeals Tribunal where, if necessary, we will seek a referral to the European Court."

Mr Geoff Pearson, chairman of the working group on part-timers at the National Association of Pension Funds, hailed the decision as "a victory for common sense", although he recognised the prospect of continuing uncertainty before the matter was finally resolved. He said the main issue in regard to part-time workers was not their access to occupational schemes but their reluctance to join.

Ten test cases had been taken to the tribunal by the TUC on behalf of part-time teachers, local government officers, college lecturers, bank workers and a health service employee. The TUC had calculated that a successful outcome would have benefited hundreds of thousands of part-timers.

Andrew Bolger and Alison Smith

Gas company to expand

Compressed air and gas purification equipment manufacturer Domnick Hunter is to create at least 350 jobs over the next five years following a £3m (£4.62m) expansion of its plant in Gateshead, Tyne and Wear, it announced yesterday.

The recruitment programme, unveiled at yesterday's opening of the extension, will take the company's workforce to more than 1,000. The new investment has more than doubled its industrial division's manufacturing, laboratory and office space.

Tyneside-based Domnick Hunter, which floated in March 1994, exports around 70% of its output to more than 40 countries worldwide. It has won two Queen's Awards for Technology and three for Export.

Chris Tighe

Ad body rap for Pepsi

Pepsi-Cola International has been told to change the way it advertises its famous "Pepsi Challenge" in the UK, following a ruling, published today, by the Advertising Standards Authority, the advertising watchdog.

The challenge, which has been running for 15 years, involves consumers blind taste testing Pepsi, the number two brand, against Coca-Cola, the market leader.

Mr Richard Branson's Virgin Cola Company complained to the ASA about a poster headed "61 per cent chose Pepsi". Virgin Cola said the poster did not make it clear that the figure referred to a comparison between Pepsi and Coke only.

Pepsi-Cola argued that the public knew the comparison was just with Coke and said that when people were asked about fizzy drinks, spontaneous recall of Virgin Cola was 1 per cent, while recall of Pepsi was 25 per cent and Coke 53 per cent.

The ASA said there had been widespread publicity on the launch of several other cola brands and Virgin research showed more people thought the comparison was with several brands than between just Pepsi and Coke. The ASA concluded "future advertisements for the Pepsi Challenge should clearly state the participating brands".

Diane Summers

Award for FT writer

Robert Taylor, the FT's Employment Editor, was last night named national newspaper journalist of the year in the Industrial Society 1995 Industrial Journalism Awards. The judges cited his "unrivalled coverage of labour and industrial affairs", adding: "No other paper, and no other journalist, has revealed the significance of developing trade union and workplace stories so effectively." In a separate category, Vanessa Houlder, FT writer on management and technology, won the Science, Innovation and Technology Award for an "outstanding" range of articles. FT journalists also received commendations: Robert Corzine in the energy category; and Danny Green and Clive Cookson in science, innovation and technology. The awards are sponsored by Texaco.

Defence ministry moves on missile for Eurofighter

By Bernard Gray, Defence Correspondent

Britain's Ministry of Defence yesterday took the first step towards buying the missile which will be the main armament for the £32bn Eurofighter.

The MoD has asked companies to tender for the £1bn design and production of the new air-to-air missile, which will give the Eurofighter the ability to shoot down enemy aircraft up to 60km away, defence Procurement Minister James Arbuthnot said yesterday.

This Future Medium Range Air-to-Air Missile is intended to replace the AMRAAM missile, made by Hughes of the US, which is currently the world standard missile in this class. The MoD wants to develop a new weapon because the AMRAAM does not meet the Royal Air Force's requirements for agility at long ranges.

FMRAAM will be guided to the target by its own radar, as is AMRAAM, allowing the Eurofighter pilot to fire the missile and immediately turn away from the dogfight. The current generation of UK missiles, Skyflash, has to be guided onto the target by the aircraft's own radar system.

The MoD may be keen to develop its own missile within Europe, as it regards the

ability to export the weapon as highly important. Currently the US restricts the export of AMRAAM to some countries and might well restrict the use of any US-designed FMRAAM.

The export prospects for Eurofighter would be badly damaged if the US exercised such a power of veto over the sale of the aircraft's principal weapon. As the MoD thinks that the Eurofighter will be attractive to countries looking for advanced fighters in the next decade, it will want to make sure it can control access to the weapons system.

Similar problems have already arisen with the US refusing to give detailed computer code information to the UK for AMRAAM missiles supplied for use by the Royal Navy. The potential market for FMRAAM is huge because it will be compatible with the missile mountings and electronics which control AMRAAM, and could act as a replacement. Germany, Italy and Spain, as the other partners in Eurofighter, may well also be interested in collaborating on the weapon. Last week, MoD, reviewing the MoD's annual report on its largest projects, expressed concern that the cost overrun on Britain's share of the Eurofighter project had increased to £1.13bn.



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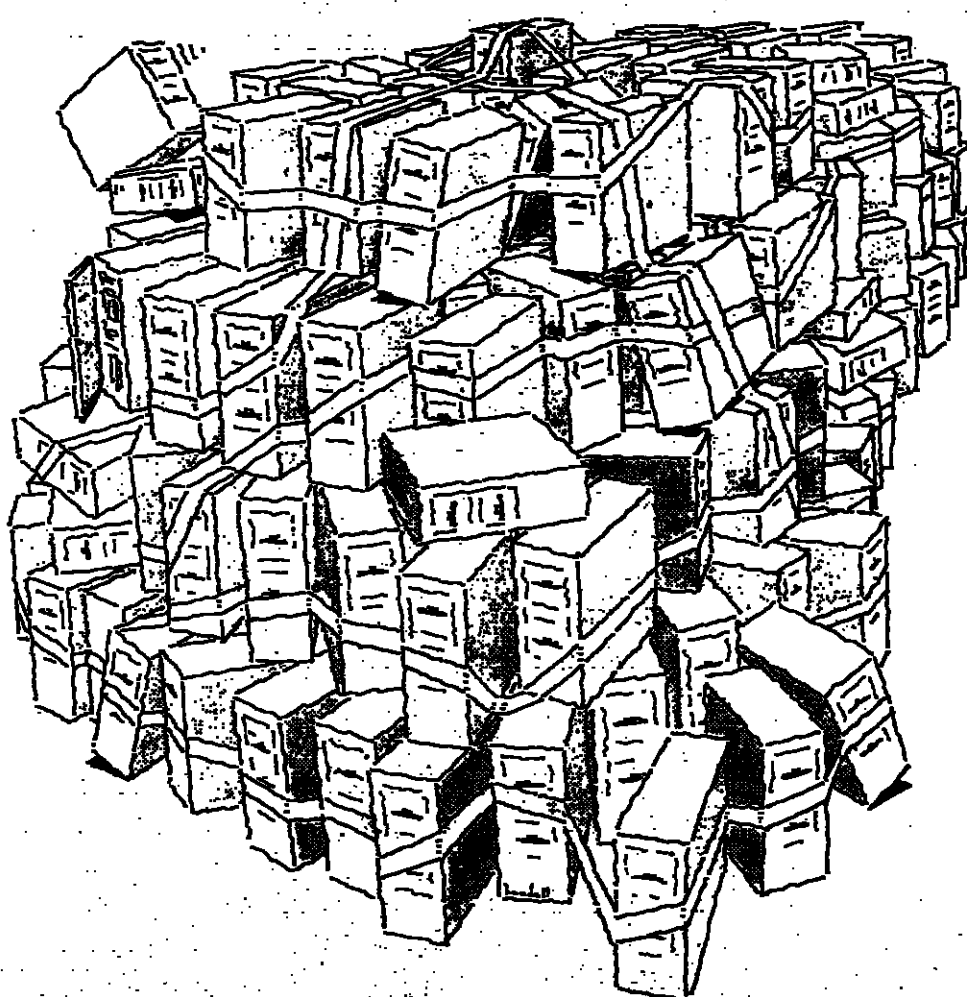
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Setback for Lloyd's Names' compensation efforts

By Ralph Atkins,
Insurance Correspondent

Efforts by Lloyd's of London Names to squeeze compensation out of auditors at the insurance market have been set back by a court ruling striking out some of the biggest legal claims against one firm, Littlejohn Frazer.

The High Court ruling against Names - the individuals whose assets traditionally supported the market - on Gooda Walker syndicates is set to reduce

substantially any contribution that Littlejohn Frazer makes to Lloyd's proposed out-of-court settlement with Littlejohn Names.

It will also make it harder for Gooda Walker Names - who plan an appeal - to collect all the £200m (£70m) in damages to which they believe they are entitled following their legal victory against Lloyd's agents in October 1994. Names are individuals whose assets have traditionally supported the 300-year-old insurance market. The Littlejohn Frazer case follows

a victory in October by Names on Merrett syndicates against Ernst & Whinney (now part of Ernst & Young) which loss-making Names hoped would persuade auditors to make a substantial contribution to Lloyd's settlement offer, currently worth £2.5m.

Mr Alastair Campbell, senior partner at Littlejohn Frazer, said: "We have enormous sympathy for the Names and the grievous losses that they have suffered... But nobody has yet produced any evidence to suggest that those losses

were caused by any failure on our part."

He said auditors' attitude towards Lloyd's settlement plan would depend on how effectively the offer allowed firms to "draw a line under" past involvement at Lloyd's.

The claims struck out by the latest ruling could theoretically have cost Littlejohn Frazer more than £200m. But in practice the figure would have been lower because compensation is expected from Lloyd's agents also being sued by Gooda Walker Names.

The High Court has also struck out claims against Willis Corroon, the insurance broker. It said 1989 and 1990 underwriting losses on Gooda Walker syndicates were caused by negligent underwriting and there was no case for recovery against auditors or brokers.

The ruling allowed the Gooda Walker Names to continue some other claims against Littlejohn Frazer - which the Names said they would pursue "vigorously" - but Cameron Markby Hewitt, the auditor's lawyers, calculate their

total value is only about £5m. Littlejohn's lawyers are also considering applying to have struck out a separate £50m claim by other Gooda Walker Names against the firm.

The latest case differed significantly from the successful Merrett claim against Ernst & Whinney where the court ruled auditors had wrongly allowed underwriters to close two years of account in the mid-1980s which should have been left open because of uncertainties about liabilities.

Telecoms regulator challenge to BT

By Alan Cane

Mr Don Cruickshank, the telecommunications industry watchdog, yesterday challenged British Telecommunications to agree to his demands for greater powers to fight anti-competitive behaviour or face continued curbs on its commercial freedom.

"These proposals on BT's pricing freedom will not go ahead, cannot go ahead, until these conditions are met", he said at the FT World Telecommunications conference in London. BT replied yesterday: "We hear what he is saying, but we disagree with it."

Mr Cruickshank's challenge seems certain to bring to a head a dispute which has been simmering since July between the regulator and the UK's dominant telecoms operator.

If the two parties cannot find common ground, the issue will be referred to the Monopolies and Mergers Commission, the second time this year that such a course has proved necessary.

Mr Cruickshank is proposing a new BT licence condition which would give him wide ranging powers to seek out anti-competitive behaviour and put a stop to it. BT has complained that his proposal is counter to natural justice and would give him the powers of policeman, judge and jury.

Earlier this week, Mr Cruickshank published a consultative document in which he set out proposals for a new regulatory structure to be implemented in 1997 which, he claimed, would offer BT considerably more latitude to set prices and run its business than under the existing regime.

He said yesterday that the proposals could only be implemented if he had the power to combat anti-competitive behaviour and if BT had administrative systems in place to make such behaviour detectable. He said: "The licensee needs adequate management information systems so it and any potential investors can assess costs and details of transfer pricing. But BT does not yet have the information systems in place. It leaves me with considerable scepticism."

He added: "If I am to move to a less interventionist regime, I need to be confident and the public and the investor community need to be confident that regulation will be effective where it is needed."

The implication is that if BT rejects his argument, the regime which the company has described as "regulatory blight" and "hostile and unpredictable" would continue. BT, which controls some 90 per cent of the UK telecoms market, said it was not convinced that the proposals in Mr Cruickshank's consultative paper were deregulatory "although perhaps they will prove so as time goes by."

It said it was already investing large sums in training its 134,000 employees to understand and comply with competition rules. "We are making every effort but this is a huge organisation made up of human beings", BT said.

Treasury resolute over Retail indicator reflects fragility forecasts for growth

By Gillian Tett,
Economics Correspondent

Officials at the UK Treasury yesterday struck a resolutely upbeat note and insisted that the recent slowdown in growth in the economy should now have ended.

Expansion in the fourth quarter of this year will be as fast as the 0.4 per cent growth seen between the third and fourth quarters - and then accelerate in the first quarter of next year, officials added.

This analysis, which was presented to the Treasury select committee, is at odds with the growing gloom about growth prospects in the City.

Some City institutions, such as the US investment bank Goldman Sachs, have been cutting their growth forecasts in recent days amid fears that the excess levels of stocks currently held by manufacturers and retailers could sharply reduce activity over the winter.

Meanwhile, most City

observers assume that an acceleration in growth will only be possible by reducing interest rates from their current level of 6.75 per cent, possibly when Mr Kenneth Clarke, the chancellor, meets Mr Eddie George, the governor of the Bank of England, on December 13.

However Mr Alan Budd, the Treasury's chief economic adviser, yesterday flatly denied that the forecast for 3 per cent growth next year was dependent on interest rate reductions.

Mr Colin Mowl, director of forecasting at the Treasury, also downplayed the danger of a de-stocking slowdown, insisting that de-stocking would occur gradually over several quarters.

"Our forecast assumes that growth in the fourth quarter of 1995 will be roughly the same as in the third quarter and then there is a pick up in the first quarter next year," he said.

He added: "I do not think we

would expect that one should reduce interest rates to hurry up the speed of the stock adjustment."

Meanwhile, Mr Mowl defended the government's upbeat projection for 3.5 per cent consumer spending growth next year, arguing that it was as likely to overshoot as undershoot this. Although some economists suspect that the Treasury may have prepared the forecast before the recent episode of weak economic data, officials insisted that it had been finished only a week before the Budget.

In spite of this upbeat view, Mr Budd insisted the economy was still in line to meet the Government's aim to keep underlying inflation below 2.5 per cent in early 1997.

And he downplayed allegations that the recent expansion of broad money or decline in sterling may have made this target harder. "Our forecast for inflation would not be sensitive to recent reductions in sterling," he said.

By Graham Bowley,
Economics Staff

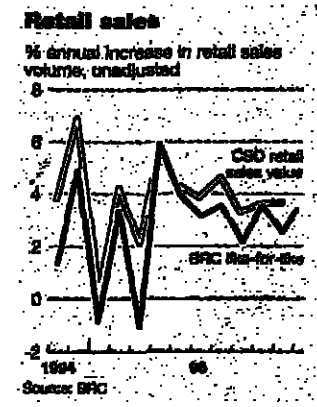
A new measure of UK high-street spending launched yesterday is set to add to the debate on the slowdown in retail sales growth witnessed this year.

The British Retail Sales Consortium, the shops and stores trade association, published for the first time its retail sales monitor. The monitor is intended to improve on existing official statistics and other industry measures of high-street spending.

The monitor, published monthly, is based on actual sales data and anecdotal evidence from a sample of 75 large retailers who account for almost half of total UK retail sales.

It measures the growth in the value of retail sales, unadjusted for changes in prices or for holiday periods, each month compared with the same month a year earlier.

The consortium said the survey of retailers covers the same period as that covered by the Central Statistical Office's own figures on retail sales and



is therefore comparable with the official statistics.

But it said that the monitor had an advantage in that it was published a week ahead of the official figures. It said its objective was for the monitor to be the "earliest authoritative measure of monthly retail sales in the UK".

The consortium also said that the monitor would provide a more useful guide to retail sales than the Confederation of British Industry's distributive trades survey.

The CBI's survey has been

The Chancellor's forecast for economic growth next year is likely to prove over-optimistic according to an independent forecast derived from the Treasury's computer model of the economy. The Ernst & Young Item Club predicted the economy would grow by 2.7 per cent next year, instead of the 3 per cent predicted in the Budget. The forecast assumes government spending rises 1 per cent on top of inflation in the next financial year, instead of falling 0.5 per cent as the Treasury expects.

criticised by economists for relying on qualitative rather than quantitative data and for the fact that the survey period often does not correspond to that used by the CSO.

City economists welcomed the new indicator as another useful measure of the state of consumer spending, although they had several reservations.

They said that retail sales volume data rather than value data was watched more closely by the City and that it would be more useful if the consortium provided monthly season-

ally adjusted figures rather than annual unadjusted growth comparisons. But the story the new indicator tells about the recent slowdown in retail sales growth is similar to that by the other statistics.

It found that, although the value of goods sold in Britain's high street shops grew modestly last month, consumer spending remains fragile.

It showed that the nominal value of retail sales last month was 3.2 per cent higher than in the same month a year earlier on a like-for-like basis - which adjusts for changes in retailers' floor space.

The consortium said the like for like measure has provided a more accurate guide to general spending patterns and has mirrored most closely movements in the CSO numbers - although in recent months it has tended to understate the CSO's growth figures by around 0.8 percentage points.

The consortium said the latest monthly rise was a "modest pick-up" from 2.4 per cent annual growth in October but it was weaker than the 3.4 per cent annual growth rate in September.

Apple industry warned over competition

By Alison Meitland

The English apple industry could be wiped out by foreign competition unless it develops and markets new varieties, an influential industry advisory group warned yesterday.

English apples' share of the £222m (\$496m) UK market has been declining steadily. It is now 36 per cent and no new varieties have been introduced for a decade, said the Strathclyde University Food Project.

The project was launched by Mr John Major, the prime minister, in 1982 to find ways of reducing Britain's £5bn trade deficit in food and drink. It is chaired by Sir Alastair Grant, chairman of the Argyll supermarket group.

The project's tree fruit working party yesterday launched what it called a blueprint for saving the apple industry. Ms Teresa Wickham, corporate affairs director of Safeway, delivered the report to Mr Douglas Hogg, the agriculture minister.

Apple production has shrunk from 380,000 tonnes in 1978 to 272,000 tonnes last year and the amount of land given over to orchards has fallen from 35,000 hectares to 20,000 hectares.

British growers are proving uncompetitive in the face of mass market-driven production of new varieties by exporters such as South Africa and New Zealand.

Mr Malcolm Schofield, a fruit grower and chairman of the working party, said the industry should produce a new variety every four to five years. The emphasis should be on English qualities of flavour and crispness.

"Our future existence depends on our ability to gain a premium over commodity apples. We have to be fast on our feet," he said.

He called on the government to divert up to half the £2.5m it spends each year on long-term research into developing new varieties which consumers wanted. "It's no use having projects with a 20-year lead time when in 20 years we might not have an English apple industry."

Genetic engineering could help improve the keeping quality of apples, so they were as crisp after six days as on the day they were bought.

The ministry should also fund a "new variety" supreme to link apple researchers and the retail market.

Broadcaster wins backing over funding arrangement

By Raymond Snoddy

Britain's terrestrial broadcaster Channel 4 has won the support of the Independent Television Commission - the broadcasting regulator - in its campaign to end the funding formula that has required the channel to pay the ITV companies £170m (£261m) so far.

The backing of the ITC to end the formula after 1997 is an important step forward for Mr Michael Grade, chief executive of Channel 4, in his campaign to overturn the agreement.

The precise form of the ITC backing has yet to be worked out but the case for abolition has the ITC's support in principle and a public statement of its position is now expected.

The Channel 4 funding formula was designed as an insurance policy to protect the channel's remit to be innovative once it started selling its own advertising in competition with ITV from the start of 1983.

Channel 4 has been so successful that in the first two years of the deal it handed over a total of £58.5m to the ITV company and expects to pay ITV £74.5m for this year. In the five years to the end of 1997 when the mechanism

comes up for review, Channel 4 estimates that it will have paid ITV a total of £300m, three times the original estimate.

Mr Grade has promised that if the funding formula is ended any money saved will be invested in British production.

Under the formula ITV is entitled to 50 per cent of any revenue Channel 4 earns above a threshold of 14 per cent of the combined advertising income of ITV and Channel 4.

Channel 4 is obliged to put half the remaining 50 per cent into a reserve fund and can spend the final 25 per cent on programmes. In return the ITV companies are bound to support Channel 4 should it go into deficit.

The channel believes that although immediate changes are unlikely it is increasingly confident that it can be overtaken post 1997.

ITV will next week launch a document defending the funding formula, which is expected to argue that the formula regulates the marketplace between ITV and Channel 4 and is a way of encouraging the Channel 4 management to stick to their remit. The ITV companies will argue that the reason why so much money has been transferred to ITV is because Channel 4 has started to invade the mainstream market with a growing proportion of American imports, affecting ITV revenues.



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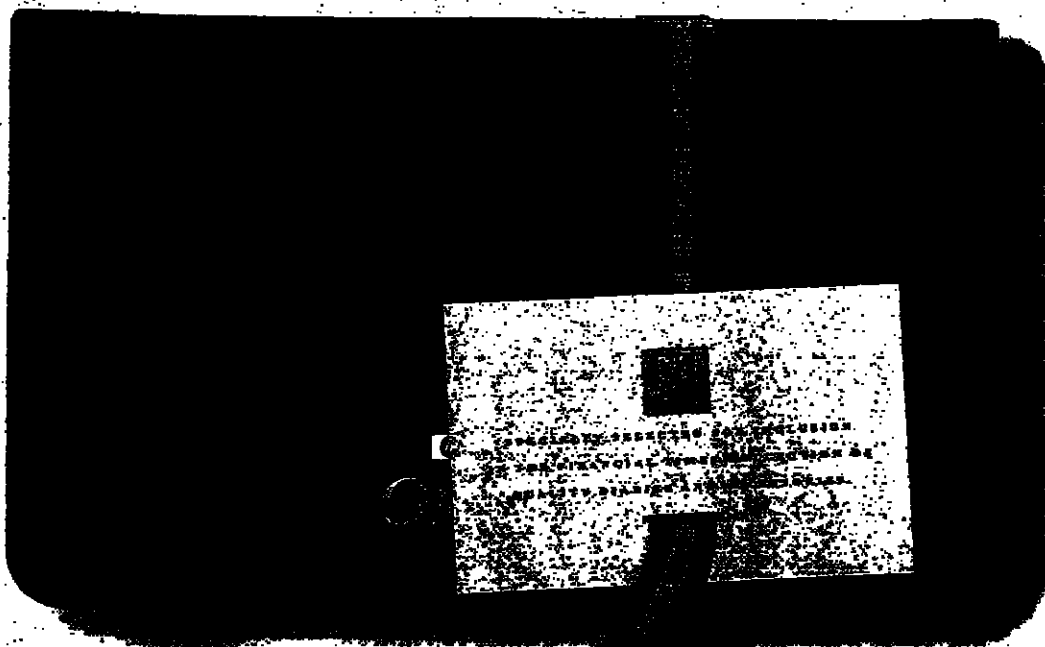


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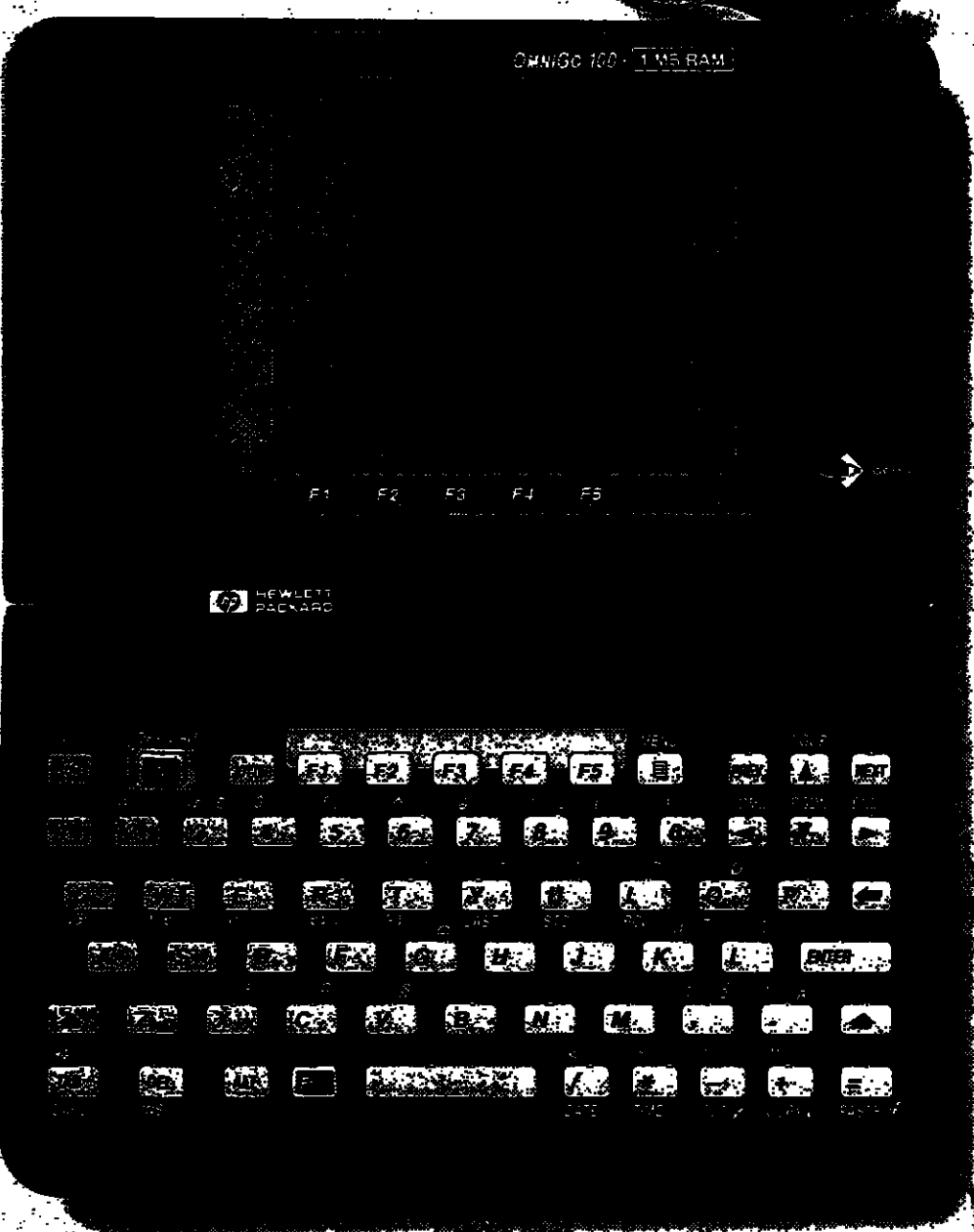
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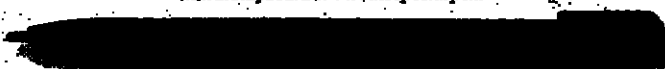
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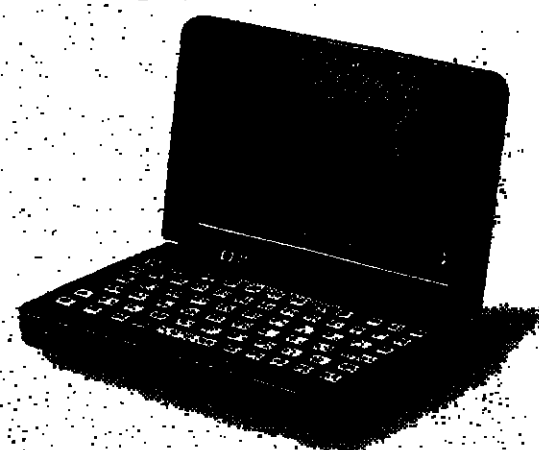
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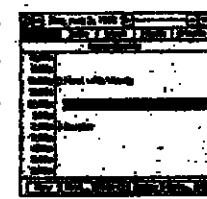


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BUSINESS AND THE ENVIRONMENT

Fewer aids sought

Demand for British environmental technologies is likely to fall sharply over the next 12 months, mainly because the government is perceived to be easing up on environmental regulation.

This is the conclusion of the latest annual survey by Environmental Policy Consultants, a group which lobbies on behalf of the environmental technology industry.

Only 72 per cent of the companies polled said they would be increasing their purchasing of environmental technologies over the next five years, down from 87 per cent last year. The sharpest fall is in air and water monitoring equipment, but other areas such as waste and water treatment, energy management and waste disposal are down.

The survey says: "This must reflect a perception by mainstream industry that the tide of UK and EC environmental legislation is beginning to wane as political attention [particularly in the UK] shifts to other policy issues." Pressure from consumers and environmental groups is seen as much less important.

The survey shows foreign suppliers making big inroads into the UK market. The British share of the market has fallen in all sectors except water monitoring. The reason, the survey's authors believe, is that countries such as Japan, Germany and the US create more effective environmental technology industries through rigorous enforcement of the regulations.

Meanwhile, Greenpeace has accused the UK government of repeatedly ignoring the recommendations of its own advisers by neglecting to support solar power. In a new report, the environmental group says that solar panels could be installed on the 2m sq m of new commercial and industrial roofing built each year in the UK. They could produce about 30 per cent of the average office building's electricity needs - and dramatically reduce emissions of carbon dioxide.

David Lascelles

Jari, one of the Brazilian Amazon's most controversial development projects, has always been the stuff of dreams. A farm half the size of Belgium which lost an American tycoon \$1bn (£600m), Jari's owners now hope eucalyptus can succeed where rice and other fast-growing trees failed. With the project's finances stretched and its environmental logic questioned, Jari's 3,000 workers pray the latest dream becomes reality.

The project was founded by the late US shipping tycoon Daniel Ludwig. When he bought the 1.6m hectare site on the northern bank of the Amazonas river, he was reckoned to be one of the world's richest men. His fortune had shrunk considerably by the time he sold out to the present Brazilian owners in 1982.

Rice yields from the complex Amazon soil were disappointing, while his imported gmelina hardwood trees were blighted by fungus.

Jari's new owners claim to have learned from past mistakes. Since 1990 they have concentrated on genetically improving strains of eucalyptus for cellulose production. The tree has grown well elsewhere in Brazil because of the warm, wet climate. Jari officials say the new strains will start showing big productivity gains from 1998.

"We now have the right genetic base and the right hybrid. By 1996 my output per hectare will have more than doubled and my costs will be considerably lower," says Fernando Tigre, president of Jari Cellulose.

Jari's consortium of Brazilian shareholders appears to share this new optimism. This year they invested R\$500m (\$65m) in the project, even though it has made losses almost every year since its founding. Their decision was partly prompted by the sharp increase in cellulose pulp prices, which have jumped from \$350 a ton in 1993 to above \$500.

The money will help upgrade Jari's 17-year-old pulp mill, which was built in Japan and shipped ready-made to the Amazon. Improvements will lift the mill's capacity to 320,000 tons a year by 1998, from this year's expected output of 280,000 tons. Production of "elemental chlorine free" cellulose, environmentally preferred because a chlorine compound rather than pure chlorine is used in the bleaching process, will increase from 50 to 100 per cent of output. However, the company has no plans to produce totally chlorine-free cellulose, a product increasingly favoured in some markets.

About R\$80m will be spent on a 33MW hydroelectric project to replace Jari's wood- and oil-burning generators and could lead to big energy savings. "From 1998, we're not going to be the lowest cost of

Reality beckons

Angus Foster on the last chance for a Brazilian development project once considered a dream venture



Jari's owners hope eucalyptus can succeed where other trees have failed

the world's cellulose producers, but we will be in the bottom third," Tigre says.

Jari's problem is that such optimistic predictions litter its past. The company has promised to end its annual losses since 1985, but only managed to do so last year, with a small profit of R\$5.9m. In the first half of this year, the company was again loss making.

Jari's location is a big disadvantage. Infrastructure links in the

Amazon are extremely poor and all chemical inputs and industrialised products have to be transported several thousand miles from southern Brazil. Because Jari was installed in what was then primary tropical forest, the company had to build and subsidise schools and hospitals for its employees, as well as maintain a 5,000-mile road network around plantations. These costs add about R\$40 per ton of cellulose, potentially the difference between a profit and

loss when cyclical pulp prices begin to fall.

The company's environmental legacy is another concern. Jari is no longer cutting down primary forest to plant eucalyptus or to burn for electricity generation - practices criticised in the past. It also rejects concerns that intensive, monoculture eucalyptus planting can affect soil quality, and says its plantations are surrounded by corridors of primary forest to reduce the spread of disease.

But its social impact in the region, an aspect critics say it neglected in the past, is now coming under review. This could again add to production costs, since private companies are often obliged to adopt development agency functions in the Amazon in place of poor and badly run state governments.

The most visible manifestation of neglect, according to critics, is the town of Beiradão, which sprung up as a centre of prostitution and other services across the river from Jari's company town of Monte Dourado. Beiradão has about 25,000 inhabitants, many living in wooden houses without basic sanitation, and most with family members working directly or indirectly for Jari.

According to Luiz Carlini, one of two priests based in the town, Beiradão is a "labour reserve" for Jari, which has never accepted its responsibility for the symbiosis between the two centres.

An accord soon to be approved between the company and the state government of Amapá suggests Jari will be forced to become more involved with neighbouring communities. In return for permission to build its hydro-electric project, Jari agreed to set aside 100,000 ha of land as a reserve for families affected by the project. It will also sell up to 10 per cent of electricity generated to consumers in places like Beiradão. Such contracts were banned until earlier this year by Brazil's constitution.

João Alberto Capiberibe, governor of Amapá, says he was pleasantly surprised by Jari's acceptance of the conditions. "I think they want to be seen to have our support because of the worries about their image," he says.

One of the more unusual sights at Jari are the thousands of water buffalo, introduced when the project had agricultural as well as forestry ambitions. Some Jari officials say rearing the animals is no longer economic and want them phased out. Pine species, which were popular in the 1980s and still make up about 40 per cent of Jari's planted forests, are also being reduced.

The buffaloes and pines, like Daniel Ludwig's rice and gmelina, may end up as more forgotten dreams. But with so much riding on the eucalyptus, Jari might not withstand another failure.

Ancient forests under threat

Hundreds of plants and animals are at risk, reports Sheila Jones

The "last remnants of western Europe's virgin woodlands" are being destroyed by timber companies in Scandinavia, according to ecologists lobbying businesses in Germany, the Netherlands and the UK this week. Ancient trees, among them 300-year-old spruce and pine, are being felled to make toilet rolls and newsprint, the campaigners say.

Forest activists from Norway, Finland, Sweden and the UK say hundreds of endangered plant and animal species are threatened because their habitats are being destroyed. They are urging timber and pulp buyers, including retailers and publishers, to drop suppliers known to be logging in threatened areas of the old-growth taiga forests of the northern hemisphere. They are also asking consumers to reject goods from threatened forestland.

While the rate of new growth in the taiga forests exceeds timber logging, new managed forests fail to provide suitable habitats for threatened species such as lichen and fungi, which survive on dead and decaying trees. Ancient conifers are being felled and replaced by single variety trees. Less than 5 per cent of the old-growth forests still exist in Scandinavia, the campaigners say. These areas include the "last remnants of virgin forests in western Europe".

"The last natural snow forests are being turned into tree farms where endangered forest-dwelling species cannot survive," says Rowan Tilly, of the London-based Women's Environmental Network. The taiga forests form a green belt of mainly coniferous trees circling the northern hemisphere countries including Canada, Alaska, Finland, Scandinavia, Russia and parts of Scotland.

About 30 per cent of forest production from Scandinavia is exported, mainly to the UK and Germany, where the ecologists are focusing their campaign. The Taiga Rescue Network, which groups a number of ecology and environmental bodies, is also urging timber and pulp buyers to examine alternative fibres for the production of paper and disposable products such as

nappies, tissues, packaging and sanitary protection. They point to fibre crops such as hemp and flax as possible alternatives.

The Taiga Network claims some progress, but it says much land is still threatened. Forestry practices are changing and governments are increasing protected areas. In Finland, 2.6 per cent of productive forest land is protected; in Sweden, under 3 per cent, and in Norway, 0.9 per cent. However, at least 10 per cent of land must be set aside if just 50 per cent of forestry is to be protected, says Roger Olsson of the Swedish Society for Nature Conservation. "It is crucial for the protection of biodiversity in Scandinavia. In some areas, species of birds have declined 50 per cent," he says.

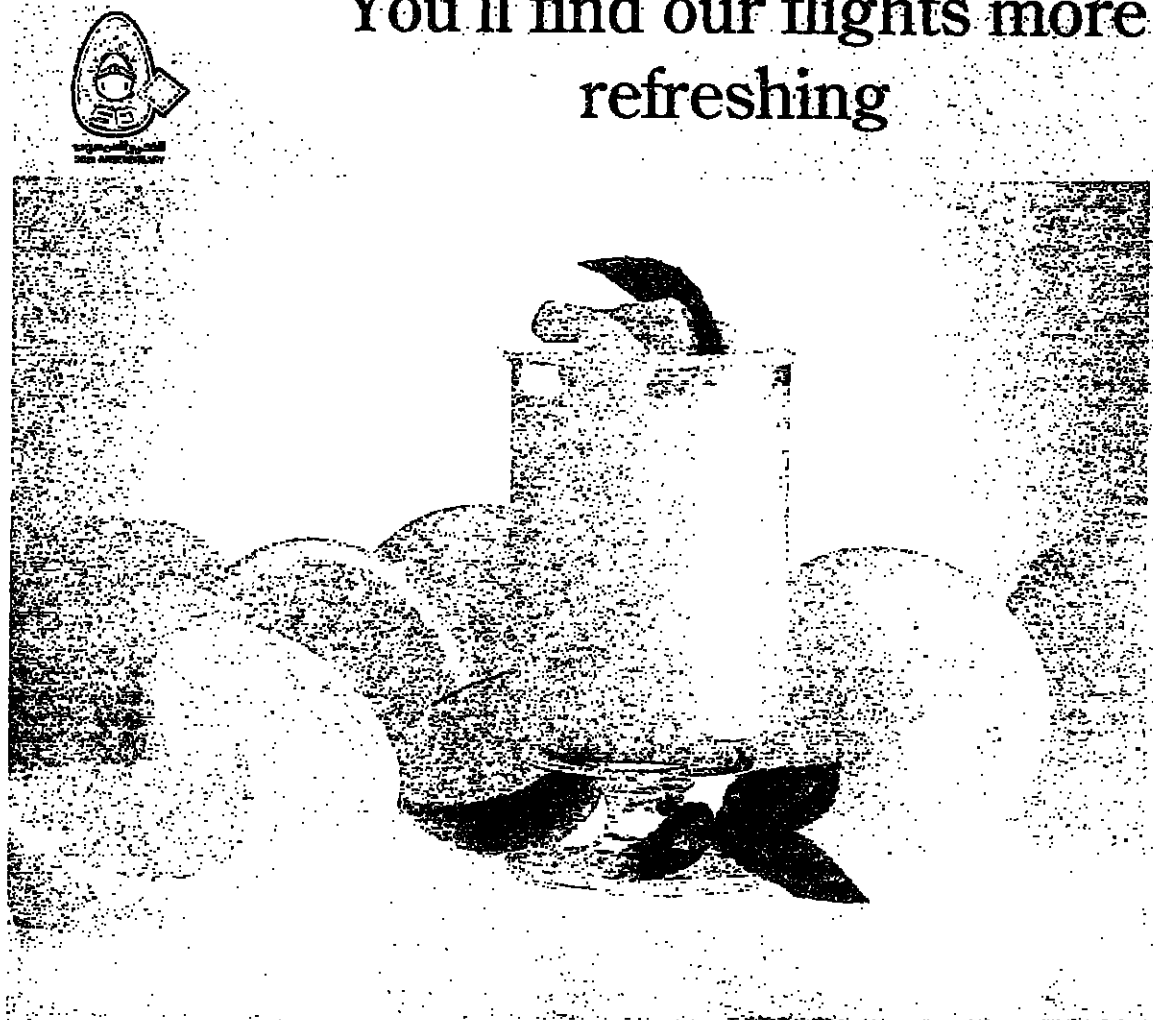
The Taiga Network is urging loggers to shift from clear-cut logging, in which old woodland is cleared, in favour of diverse forest management to preserve biodiversity. It is also pressing for a system of certification for loggers that can show they are not felling in threatened areas.

The network has recently persuaded one of Sweden's largest timber co-operatives to reconsider logging in a taiga region in southern Sweden. Ulf Gunnarsson, information director of the Södra co-operative, says the organisation is close to agreement to prevent logging in Ratjarnskogen following the network's campaign.

SCA, the Swedish timber group, argues there is no clear definition of which areas are threatened. It is building an inventory of trees in its own 1.8m hectares of productive forest land, and it is discussing with ecology organisations the criteria for a certification system. However, Björn Lynnefelt, SCA communications manager, added that ecology groups hindered their own cause by "sweeping criticisms, slogans and unfounded accusations".

Among UK retailers approached by the network's campaigners, J. Sainsbury says it has been reviewing supplier lines to ensure they meet the company's own guidelines on packaging. These aim to use minimum packaging and to use recycled materials where possible.

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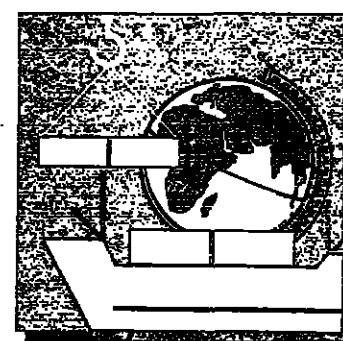
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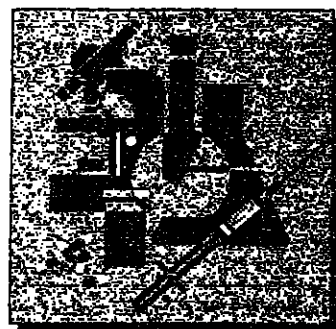
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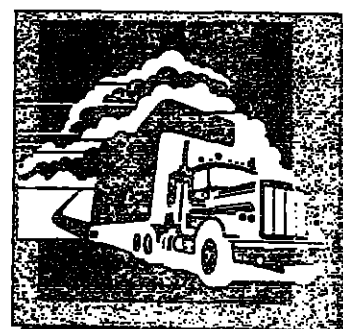
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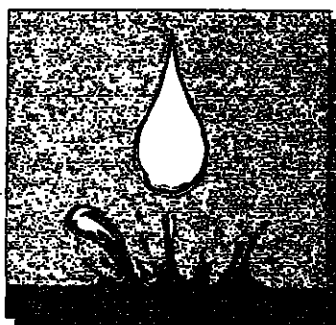
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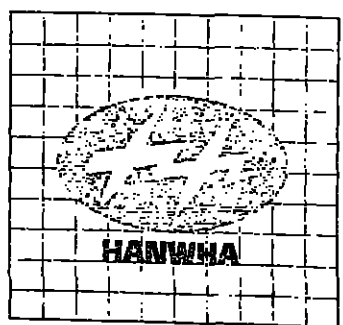
Pharmaceuticals



Distribution



Petrochemicals



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هكذا من الامين

ARTS

Television/Christopher Dunkley

Some real-life eye-openers

Do we really have to spend any time on *Inspector Morse: The Way Through the Woods*? It was competently made, though too long, and looked just like the previous *Inspector Morse* programmes. And what about all this Beatles stuff which has already received such quantities of publicity: is any of it telling us anything we did not already know? The early days in Hamburg, Ringo's auntie, the sessions at The Cavern, the Decca executive who decided not to give the group a contract - is this supposed to be news? Or an effort to boost bank balances which are down to their last few tens of millions? It is bad enough that television devotes so much time to this sort of unoriginal, uninformative, uninspiring material. What is worse is the readiness of newspapers to give vast amounts of space to promoting it before transmission, as though it were important and the papers were grateful handmaidens to the great god television.

Let us consider instead some of the programmes shown during the past week which have told us something we did not already know. The Channel 4 series *Secret Lives* is developing a wonderful line in iconoclastic biography. This is all the more refreshing given that television's usual line is hagiography (see that Beatles series, for instance). Last week director Madonna Benjamin and producer John Goddard turned the revisionist spotlight on Marie Stopes, birth control pioneer and author of *Married Love*, a sex manual which, when I read it in 1959, still seemed progressive and daring even though it was then 41 years old.

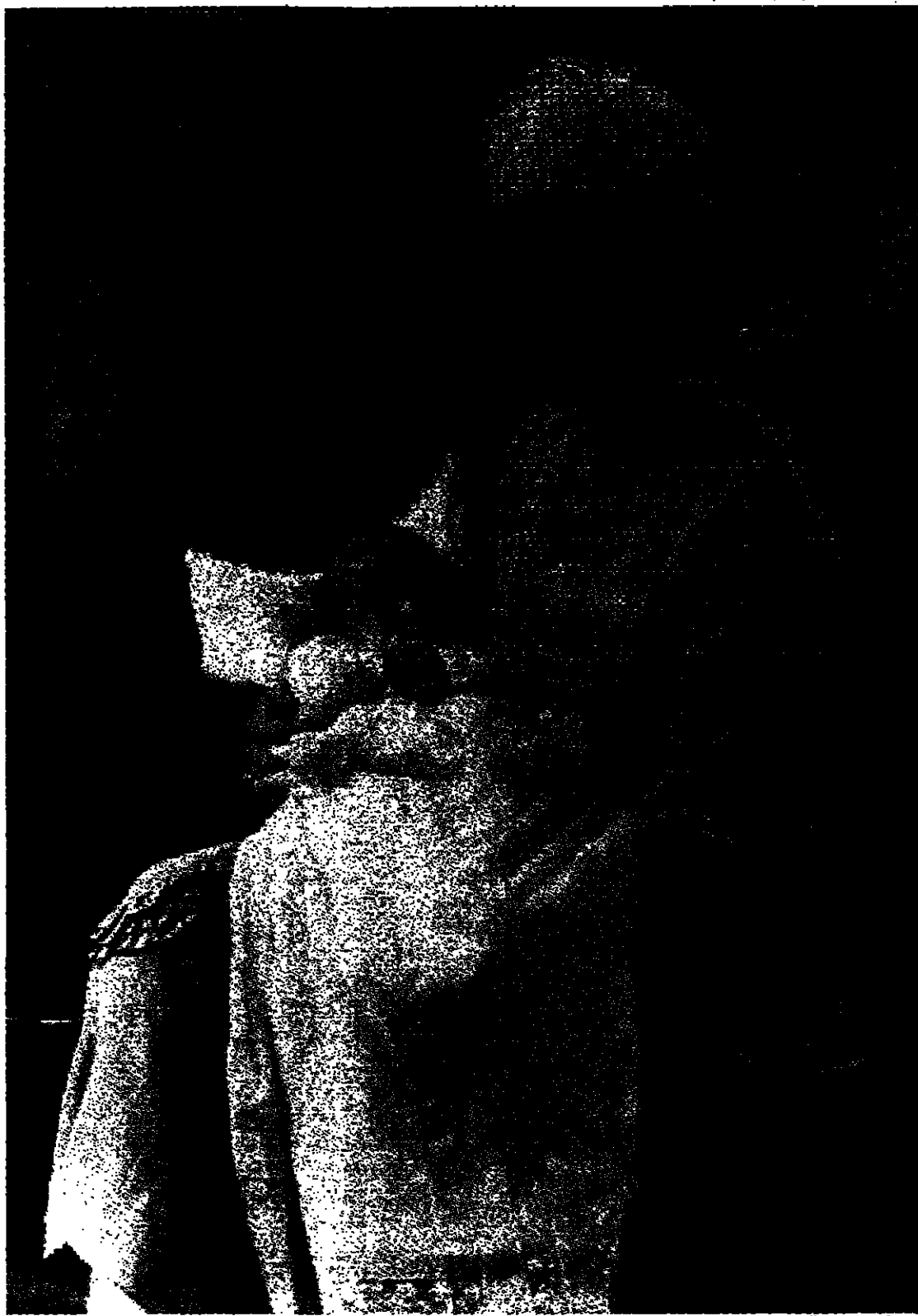
This programme showed that good old gutsy tell-it-like-it-is Marie wrote the book while still a virgin. It seems that she acquired her expertise while searching in the British Museum for evidence to support her claim of non-consummation of her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife where they stood him into the maths lessons. On the other hand there are growing numbers of in-converters who are retreating to the Rockies from hotspots in California and elsewhere and who tend to be liberals, feminists, and homosexuals. This is the sort of place where many believe passionately in the famous misinterpretation of the "right to bear arms" phrase in the constitution and belong

producer of *The Family and Sybil's Waters*. This is less sensational, yet possibly the best thing Watson has ever done. Perhaps people from the gas fire factory in Liverpool will tell us it is unfair, yet they must, presumably, have agreed to have the cameras in. The entire series has looked like one of those "How not to do it" training films. If you showed it to the Japanese they would think it was a sitcom. The workers' canteen has been closed. The lavatories are appalling. The nurse has been dismissed. Practically the entire workforce seems to suffer from repetitive strain disorders of one sort or another. Television tells us so little about one another's working lives that it is hard to know whether this factory is a lone survivor from a Dickensian past, a pretty typical example, or something in between. Even if it is unique, which seems highly unlikely - this is a valuable series.

You would not apply the word "valuable" to *Eurotrash*, yet there is no denying its originality. In the beginning - presented by Antoine de Caunes, ze man wiz ze verre theek (yet undeniably splendid) accent - it was a European television version of the old weekly tabloid *TV Bits*, full of items that could be headed "Just Fancy That", with a leaning towards the titillating.

Now, presented by de Caunes in harness with Jean-Paul Gaultier, it operates under the title *Eurotrash: The World Tour*, goes anywhere, and concentrates almost exclusively on sexual oddities. For Friday's edition (meaning the producers, not de Caunes and Gaultier who front the whole thing from a studio) went to Japan to show us the Festival Of The Penis, a TV weather girl with flip-up metal bra cups, and a dog-dating agency. The tone is mocking and much of the material trivial, yet in half an hour of *Eurotrash* you are likely to hear ten times as many things you did not know as in all the recent Beatles programmes laid end to end. You are likely to laugh a lot more, too.

Assignment on BBC2 provided a disturbing report on small town America. A visit to Kalspell in Montana revealed a real-life *Twin Peaks*. On the one hand there are the religious nutters who fire-bomb the abortion clinic and send their children to schools where they shoot them into the maths lessons. On the other hand there are growing numbers of in-converters who are retreating to the Rockies from hotspots in California and elsewhere and who tend to be liberals, feminists, and homosexuals. This is the sort of place where many believe passionately in the famous misinterpretation of the "right to bear arms" phrase in the constitution and belong



Marie Stopes, the birth control pioneer, with her son: according to Channel 4's 'Secret Lives' she was a megalomaniac and a bully and wrote 'Married Love' whilst still a virgin

to private militias. They see attempts to tighten up the gun laws as preparation for the UN (yes really, the United Nations) to take over the US.

Some viewers will know the country well enough to be familiar with attitudes in the boondocks without a programme such as this, but for most of us it will surely have been illuminating. Much the same can be said, I suspect, for Irvine Welsh, subject of *In Your Face*, also on BBC2. Having

seen his books (*Trainspotting*, *The Acid House*, *Murder on the Rock*) stacked high in the shops, and read the profiles of him, we are aware of his existence but not too sure about the sort of thing he writes. This programme made it abundantly clear: a latterday William Burroughs, capable of conveying the experience of the Scottish junkie from the inside, Welsh himself appeared, explaining that "drugs of choice" changed in the 1980s

from the legal (alcohol and tobacco) to the illegal (heroin and crack). And critics and admirers appeared, explaining why they find his work unusual and compelling. It would take a stubbornly resistant viewer to watch this programme and at the end not want to sample at least one of Welsh's books.

Is there anybody who could be similarly turned on to the Beatles by all those documentaries?

Theatre/Alastair Macaulay

Rare Shaw revived

Among George Bernard Shaw's many qualities, one of the most enchanting is fantasy. In his play, *The Simpleton of the Unexpected Isles*, the Unexpected Isles have recently risen from the Pacific Ocean and have been occupied as a Crown Colony of the British Empire; the simpleton of the title, the young Reverend Phosphor Hammington, had been kidnapped by pirates from Weston-super-Mare and forced to preach their terrible Church of England sermons that made them ill with laughter.

News arrives that England is seceding from the British Empire; and an angel, arriving onstage to introduce Judgment Day, apologises "I am afraid you will find it very dull". Few playwrights have been more surprising than Shaw, or more fun.

The Simpleton of the Unexpected Isles was first given in 1933 in New York, where it flopped. Although it was presented at the Malvern Festival

in 1933 and at London's Arts Theatre in 1945, Sam Walters's new staging at Richmond's Orange Tree Theatre may be London's first public production of it. Shaw did not have in mind a theatre where the audience sits on all four sides of the stage, and where there is virtually no scenery. In the event, however, this setting enables us to concentrate all the more on Shaw.

He was, among other surprising things, a multiculturalist. Modern audiences at first may be nervous when they hear some characters use the words "nigger" and "Jew boy", but it soon becomes clear that Shaw's only prejudice is against Eurocentricity.

"Polygamists form the vast majority of the subjects of the British Empire," Prola, the beautiful local earth-mother type, tells the young simpleton. "Try to remember that, and that you are not in Clapham."

Prola and Hyering are two of six adult characters who have reared four divine superchildren, Maya, Vashiti, Janga and Katchin who are physically perfect, but with no scrap of moral conscience. Young Hammington has only too much conscience: a true holy fool. Perhaps, with Maya and Vashiti, he will breed superchildren of a yet higher order; and so Act One ends.

But Shaw was as sceptical about eugenics as he was about everything else. *The Simpleton of the Unexpected*

Isles will prove more entertaining if you do not know what happens. The entertainment has a serious dimension. As always, Shaw is engaged with what is the best way to live. We assume at first that the Unexpected Isles are a kind of Utopia; we realise eventually that they are the whole world. Hugo Hyering's wife constantly trots out the catchphrase "Let life come to you"; she does not always mean it, but Shaw does - except that he also believes in the reverse, in letting yourself come to life.

Kate O'Mara plays Prola. There is so much more to say about her figure and her maquette than about her acting. "Surprise and wonder are the very breath of my being" are not

words that ring true from a woman who looks like the prize product of a whole team of hard-working beauticians. Read Rawl brings simple dignity to the role of Pra, and the fresh-faced wide-eyed Christopher Staines is well cast as the simpleton. "I am weak-minded and lose my head very easily," he says in an adorable speech. Some of Shaw's weaknesses are apparent. His brand of feminism led him, for example, to make Prola rather too obvious and simple a super-earthmother; and, the charming artifice of the play's talk keeps it always in Never Never Land. And so what? I do not mean it entirely kindly when I call *The Simpleton* a harmless play; but I am very glad to have seen it. Shaw's weaknesses are much more admirable than most playwrights' virtues.

At the Orange Tree, Richmond, until January 27.

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At the Orange Tree, Richmond, until January 27.

Concerts/David Murray

Solti honours Bartók

Sir Georg Solti's round of Bartók at the Barbican concluded last Sunday, but its peak came on Thursday with *Duke Bluebeard's Castle*. This extraordinary one-act opera usually goes well in a concert performance; the "action" is entirely psychological, and fully rendered - in all its sinister ambiguity - by Bartók's searing score.

As Bluebeard, Solti had the Hungarian bass László Polgár, a brooding presence with a noble voice, equal to any challenge from the large orchestra (here the London Symphony in top form); perfect in this role, Julia Varady's Judith was brave and intelligent. Around them, Solti spun a glittering web, fluent and impassioned beyond the norm.

In this early masterpiece (first drafted in 1911, and Bartók never wrote anything much like it again) the music is laid out in sections, like successive panels of a frieze, and that is most often how conductors play it. With the boldness of long experience, Solti swept many distinct sections up into great dramatic curves: there seemed to be more long-breathed spans than one had ever realised. Sometimes his intuitions crossed the strict letter of the score, but who would argue? This was an electrifying performance.

Entertainingly, the Barbican had unearthed a Michael Powell television-film of the opera, made at Salzburg in 1964. Sadly, it proved on Sunday to be no great shakes: good soloists (Norman Foster and Ana Raquel Satre) all too obviously dubbed, over a dull orchestral

reading that was ill-recorded, shrill and choked. Visually, there was one small, irrelevant trisom when swords stabbing toward Judith from all round the frame suddenly recalled Powell's *Peeping Tom*.

Otherwise, the film combines absurdly intrusive décor with Hollywood-stagey handling of the principals. The text is credited to Béla Balázs, but the "text" Balázs - who later became an important film-theorist - gave Bartók included not only the words but a detailed visual scenario, stark and plain: Powell's arty mess would have made him ill.

András Schiff figured in both of these Solti concerts: in the second of Bartók's piano concerti on Thursday, and for Sunday's chamber-music concert his exuberantly inventive Sonata for two pianos and percussion, with young Dénes Várjon as partner and Solti as self-effacing conductor. In both works Schiff's light-fingered touch and agile wit, which put an off-line spin on many a phrase (nicely echoed by Várjon), were charming.

I confess an unshakable loyalty, however, to the Bartók's own (Bartók and his second wife's) reading of the Sonata, which they deliver firmly, evenly and rather bluntly, though with robust good humour. The vital structure emerges better without local distractions. This is not Romantic music, nor is the 2nd Concerto - in which, incidentally, Solti and Schiff often tended to part rhythmic company.

Chamber-concert sponsored by Mrs Jackie Rosenfeld.

Opera

A static 'Aida'

New just a year and a half ago, Elijah Moshinsky's serviceable, all-purpose production of Verdi's opera has already had several disparate casts. The singers the Royal Opera engaged for it kept dropping like flies. Partly as a result, his *Aida* has not yet enjoyed a strong, consistent team of soloists who could justify Moshinsky's budget-wise rejection of the usual grandiose pomp. The latest cast is pretty disparate too, though it has its fine moments.

Danielle Gatti conducts an instantly up-tempo *Aida*, indifferent to poignant sentiments of the preludes but attentive to the urgencies of the action. His soloists are another motley crew. The American tenor Michael Sylvester delivers a mature, full-hearted Radames, lyrically unimpressive in "Celeste Aida" but virile and musical later on. Like most tenors, he is not flattered by Covent Garden's flat acoustic; we only began to appreciate him properly when he had a front-stage backdrop close behind him.

As Amneris, Nina Terentiev again sings her Italian *à la Russe*: guttural, exciting and quite unintelligible, except in cries of "Amore!" She has to wait for the Act 3 scene to exploit her grand mezzo range. Simon Estes, the black American *Heldenbaron* whom we know already in Wagner roles,

makes a taut, forceful Amneris. The high priest Peter Rose exerts a pleasant, cultivated bass where something blacker is *de rigueur*.

In *Aida* cartoon-characters can be apt enough, so long as they seem to live and breathe. That, however, requires palpable interaction, beyond what the rehearsal-schedule seems to have permitted. The new *Aida*, the American star Sharon Sweet, is a case in point (undimmed by any trace of an Ethiopian tint, probably through "p.c." sensitivity winning over dramatic sense). A large soprano in both senses, she moves with dignity and extreme decorum; expressive gestures need slow, careful planning and execution, and are therefore rather infrequent.

Watching *tableaux vivants* may have been like this. Any spontaneous feeling is represented decorously, in naive semaphores, and too late to matter: too late to find any friction in her confrontation with Amneris, or in the crucial set-to with Radames. Miss Sweet gives good concertaria, but she is no operatic actress. We had to be content with the incidental delights of her musically art, strong-voiced if not remarkably beautiful. There is more to *Aida* than that.

D.M.

At Covent Garden until December 30.

INTERNATIONAL ARTS GUIDE

AMSTERDAM

CONCERT
Concertgebouw
Tel: 31-20-5730573
● Radio Kamerorkest: with conductor Peter Ešvós, tenors Peter Hall and Valery Serkin, basses Gert-Jan Alders and Jan Aerts, and Marta Fabián on cymbals perform works by Stravinsky, Beethoven, Berlioz, Kodály and Schubert; 8pm; Dec 9

EXHIBITION
Stedelijk Museum
Tel: 31-20-5732911
● Metz & Co.: The creative jaren: this exhibition focuses on the "department store of the avant-garde" Metz & Co. Between 1920 and 1960 several architects, furniture designers and artists were commissioned to create products for this firm; from Dec 9 to Feb 18

BERLIN
CONCERT
Komische Oper Tel: 49-30-332600
● Orchester der Komische Oper: with conductor Lehar Zagrosek

perform works by Stravinsky, Hindemith and Bruckner; 8pm; Dec 7

KONZERTHAUS
Tel: 49-30-203092100/01
● Berliner Sinfonie-Orchester: with conductor Matthias Jung, the Dresden Kreuzchor and tenor Markus Brucher perform Britten's "Saint Nicolas" and Dostoevsky's "Die Weihnachtsgeschichte"; 8pm; Dec 9, 10, 11

● Philharmonie & Kammermusiksal
Tel: 49-30-254880
● Berliner Philharmonisches Orchester: with conductor Claudio Abbado and pianist Maurizio Pollini perform Brahms' "Piano Concerto No.2" and R. Schumann's "Symphony No.3"; 8pm; Dec 7, 8, 9

BRUSSELS
CONCERT
Palais des Beaux-Arts
Tel: 32-2-5078466
● Koninklijk Concertgebouw: with conductor Gennady Rozdchistvensky and cellist Yo-Yo Ma perform Dvorak's "Cello Concerto in B minor" and Prokofiev's "Symphony No.5"; 8pm; Dec 9

CHICAGO
EXHIBITION
Museum of Contemporary Art
Tel: 1-312-280-2660
● Andres Serrano: Works 1983-1993: the first major mid-career retrospective of Serrano's large-scale Cibachrome photographs, featuring more than 50 works created during the last 10 years. Serrano's work often examines controversial subjects

such as religion, racism, homelessness and death; from Dec 9 to Feb 4

COPENHAGEN
DANCE
Det Kongelige Teater
Tel: 45-33 14 10 02
● The Triumph of Death: a choreography by Flemming Flindt to music by Thomas Koppel, performed by the Royal Danish Ballet. The ballet is based on Ionesco's play "Jeux de Massacre"; 8pm; Dec 8

FRANKFURT
THEATRE
Schauspielhaus
Tel: 49-69-21237444
● Heidenplatz: by Bernhard. Directed by Peter Eschberg and performed by the Schauspiel Frankfurt; 7.30pm; Dec 7, 8

HANOVER
THEATRE
Niedersächsisches Schauspielhaus
Tel: 49-511-1886146
● Ivanov: by Chekhov. Directed by Hartrud Wickert and performed by the Niedersächsisches Schauspiel (in German); 7.30pm; Dec 7

LONDON
AUCTION
Sotheby's; Parke Benet & Co.
Tel: 44-171-4938080
● The Dr Otto Schäfer Collection Part IV - The Jean Fürstberg Collection of 18th-Century French Books: the fourth sale from the

library of book collector Dr Otto Schäfer comprises the collection of 16th and early 18th-century French books which Dr Schäfer acquired on

from his long-time friend and fellow bibliophile Jean Fürstberg in 1974. Highlights of the sale include Charles Hersent's "Optati Galli de cavendo schismate", published in Paris in 1640. Cardinal Richelieu ordered all copies of this book to be burned, because it described the power struggle between the French and Roman churches; 10.30am; Dec 7, 8

CONCERT
Purcell Room Tel: 44-171-9604242
● Klezmer Swingers: Wallace Fields, Ron Findon, Alan Berlyn, Murray Salmon and Malcolm Ball trace the cultural development of Jewish music from the clare of Odessa to the speakeasies of New York in the 1920s; 7.30pm; Dec 7

ROYAL FESTIVAL HALL
Tel: 44-171-9604242
● The London Philharmonic: with conductor Alexander Lazarev perform Rimsky-Korsakov's "The Story of Tsar Saltan", Prokofiev's "Piano Concerto No.2" and "Les Tchaikovsky's "Francesca da Rimini"; 7.30pm; Dec 8, 15

Wigmore Hall Tel: 44-171-9352141
● Gabrieli Consort & Players: with conductor Paul McCreesh perform works by J.S. Bach; 7.30pm; Dec 7

DANCE
Royal Opera House - Covent Garden Tel: 44-171-2401200
● The Royal Ballet: perform the choreographies "Apollo" and "Duo Concertant" by Balanchine, "Sideshow" by MacMillan and "Fearful Symmetries" by Page; 7.30pm; Dec 7, 14

EXHIBITION
Whitechapel Art Gallery
Tel: 44-171-5227898
● Emil Nolde: exhibition of the work of the German Expressionist Emil Nolde (1867-1956). The display contains paintings, watercolours, drawings, prints and applied art objects, and takes in the whole range of Nolde's career and themes, including his symbolic landscapes and religious scenes, his depictions of the cabaret and city life, and his interests in the erotic and the grotesque, in primitivism and race; from Dec 8 to Feb 25

LOS ANGELES
DANCE
Wadsworth Theater
Tel: 1-310-825-2101
● Nederlands Dans Theater 3: perform choreographies by Kylian; 8pm; Dec 8, 9

NEW YORK
CONCERT
Avery Fisher Hall
Tel: 1-212-875-5030
● I Musici: perform Christmas Concert of the Italian Baroque, including works by Corelli, Manfredini and Vivaldi; 7.30pm; Dec 10

EXHIBITION
The Metropolitan Museum of Art
Tel: 1-212-879-5500
● Haute Couture: a technical examination of the quality and properties of haute couture, using The Costume Institute collection. Designers from the House of Worth to the present are included in this exhibition intended to highlight couture detail and tailoring;

from Dec 7 to Mar 24

PARIS

CONCERT
Salle Pleyel Tel: 33-1 45 61 53 00
● Orchestre Symphonique Français: with conductor Laurent Petitgand and pianists Michel Beroff, Jean-Philippe Collard, Gabriel Tacchino and Bruno Rigault perform piano concertos by J.S. Bach; 8.30pm; Dec 11

SALZBURG

EXHIBITION
Rupertinum - Salzburger Landesausstellungen
Tel: 43-662-80422336
● Die göttliche Komödie: exhibition of some 100 works produced by Markus Vallazza in recent years; from Dec 7 to Feb 18

VIENNA

CONCERT
Konzerthaus Tel: 43-1-7121211
● Mara Zampieri: gala performance by the Italian soprano. With the ORF-Symphonicorchester conducted by Alexander Rahbari; 7.30pm; Dec 7

WASHINGTON

CONCERT
Terrace Theater
Tel: 1-202-467 4600
● Muir String Quartet: with harpist Heidi Lehtwälder, violinists Peter Zazofsky and Wei-Pin Kuo, viola-player Steven Ansell and cellist Michael Reynolds perform works by Haydn and Brahms, and the premiere of Silver's "Harp Quintet (From Darkness Emerging)"; 7.30pm; Dec 7

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17.30 Financial Times Business Tonight

Midnight Financial Times Business Tonight

الرياضيات

COMMENT & ANALYSIS



Edward Mortimer

Out of safety's reach

The home secretary's bill is designed not only to weed out bogus asylum seekers but to keep genuine refugees away from the UK

"Immigration policy will be decided here in Britain, and not in Brussels." So Michael Howard, the British home secretary, told the Conservative party conference in October. No doubt he would wish his Immigration and Asylum Bill, now before the House of Commons, to be seen as an example of this distinctively British approach.

The truth is slightly more complicated. Under the Maastricht treaty, immigration policy is classified as a "question of common interest", and Mr Howard attends meetings of the European Union Council when it deals with home affairs. Last June he and his colleagues adopted a "resolution on minimum guarantees for asylum procedures".

This laid down the general principle that asylum seekers have the right of appeal if their applications are rejected, and should be allowed to remain in the country while the appeal is pending. But it made an exception for cases where the ground for rejection is that the applicant could and should have sought asylum in a "safe third country" - that is, a country through which he or she has already passed since leaving his own.

The EU ministers undertook to "strive to bring their national legislation into line with these principles by January 1 1998". France, the Netherlands, Denmark, Finland and Germany have already done so. Mr Howard, like a good Eurosceptic, is dragging his feet a little. But the bill he has now tabled brings him into line, since it will strengthen existing UK provisions that make appeals against return to a safe third country exercisable only after removal.

Alas, "after removal" is too late, as research by Amnesty International shows. Earlier this year, the human rights group looked at 60 random cases of asylum seekers whose applications had been refused on these grounds, and found that in the overwhelming

majority of them the Home Office ultimately rescinded its decision and agreed to examine the substance of their claims in the UK. In only one case was the asylum seeker ultimately expelled to a third country without being "bounced back" to the UK.

That case is hardly encouraging. "Mr A", an Iraqi, was sent back to France where a French refugee agency told him it would be "pointless" to apply for asylum because he had already been through several other countries on his way there. He spent several weeks in a destitute state, sleeping in public parks, and has now disappeared. Clearly he had not had "an opportunity to seek and, if appropriate, obtain protection" in France, although that was the basis of his rejection by the UK.

In all the other cases, either the applicant was "bounced back" to the UK by the receiving country, or it was eventually accepted that there would be a genuine risk of them ending up back in the country whose persecution they claimed to be fleeing. In other words the "safe third country" was not so safe after all, and the UK authorities could not escape responsibility for deciding whether the applicant was a genuine refugee or not.

A lot of time, money and anguish would be saved if this responsibility were accepted in the first place, and the validity of asylum claims were automatically assessed in the country where asylum is actually requested. To remove people first and let them appeal afterwards is callous and cynical, since the issue they are appealing on is whether the country they are removed to is safe for them or not.

Appeals, a necessary part of any judicial system, become meaningless unless it is accepted that they will sometimes be well-founded, and that, if they are, it must be possible to reverse the effects of the verdict as well as the verdict itself. But Mr Howard proposes, in effect, to treat appellants as if their appeals had already failed. His colleague Peter Lilley, the social security secretary, is doing the same to asylum seekers who appeal against a rejection of their claim.

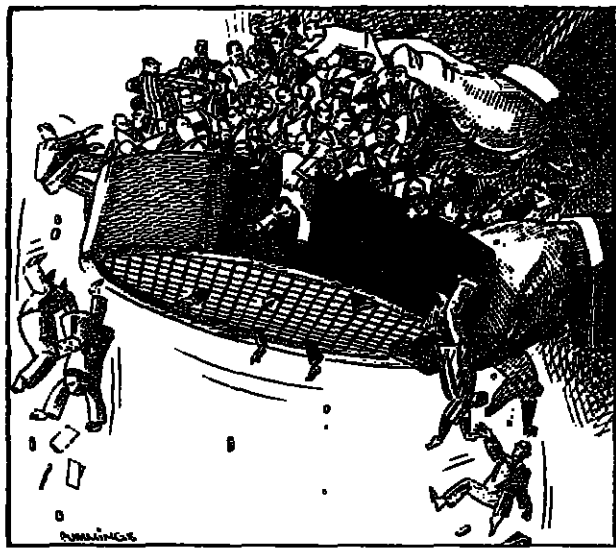
Under new regulations that Mr Lilley has tabled, such people will no longer be entitled to social security. The office of the UN high commissioner for refugees has made representations about this, being

"unable to see how a legal appeal right can be fairly accessed if the appellant is not given the assistance necessary to sustain him or herself in that period. It is a disability many of us must share."

Not only appellants are to lose their entitlement to benefit, but also people whose asylum application has yet to be answered at all, if they applied after entering the country rather than at the moment of entry. The only exceptions will be those whose country the home secretary, in his wisdom, has designated "a country of upheaval", ie, one to which "a major change of circumstances" prevents their return. Even then they would be eligible for benefit only if they lodged their claim within three months after such a declaration, and not before it.

You might think that nationals of a country would be aware of such a change of circumstances before the Home Office. The latter's country profile on Nigeria, for instance, stated as recently as September that there was "no evidence that Ogonis... face persecution from the Nigerian authorities for membership of Mosop", the movement headed by Ken Saro-Wiwa. But under these rules anyone who makes the mistake of applying for asylum before Mr Howard has admitted the existence of an upheaval in their country will not be entitled to benefit.

These proposals make a mockery of Britain's claim to be honouring its obligation to protect genuine refugees under the 1951 convention. Their object is not, as is claimed, to weed out "bogus" asylum seekers, but to deter even genuine ones from choosing Britain as a destination, and above all to provoke the Labour party into adopting a position that can be represented as "pro-immigration" in the coming election campaign. There could hardly be a clearer way for Britain's rulers to demonstrate their low opinion of the electorate.

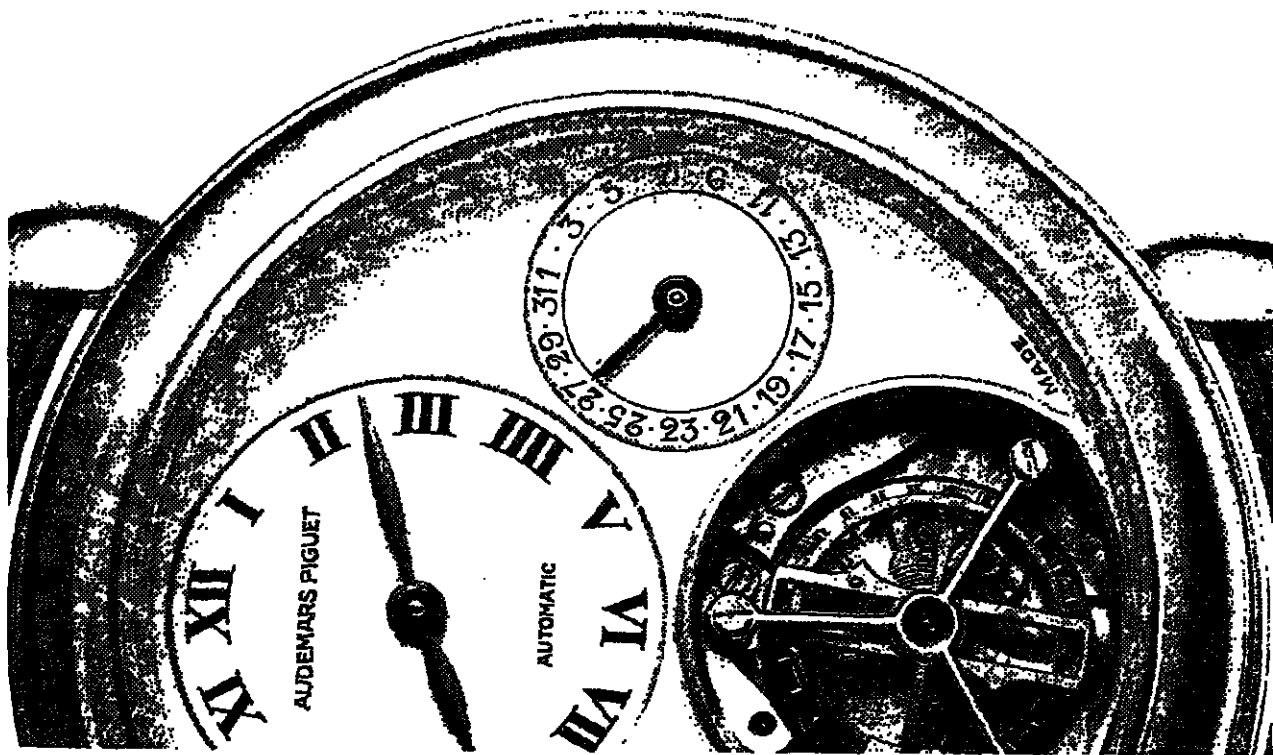


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LETTERS TO THE EDITOR

Number One Southwark Bridge, London SE1 9HL

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Pressure on retailers over sweatshops overdue

From Mr Neil Kearney.

Sir, It is difficult to feel sympathy for US retailers under pressure from the secretary of labour, Robert Reich, to monitor the working conditions under which the garments they sell are produced ("Power of publicity turned on America's sweatshops", December 2/3). Had the heat been turned on a little earlier, there might now be a lot less lawlessness in the US garment industry where surveys show nine out of every 10 manufacturers in breach of labour legislation.

Reich's "white list" of companies retailing "clean"

clothing is long overdue. Claims by retailers that they are unaware of the conditions under which garments are produced defy logic. These same retailers monitor production, quality and delivery at plant level.

Hopefully, the Reich proposal will be extended to the sourcing of garments worldwide. Retailers must be forced to take more care in their choice of supplier and pay greater attention to the conditions under which garments are produced.

Were they to do so, child labour, unsafe and unhealthy working conditions and gross

exploitation in the industry would be greatly reduced almost overnight.

Claims by the retailers that this would be extremely costly and would fall on consumers is simply untrue. For example, the labour cost in a shirt manufactured in El Salvador for sale in the US at around \$35 is a mere 10 cents.

Workers could be given the right to join unions, to bargain collectively, to work in a hazard-free environment and to enjoy the protection of El Salvador's labour law and have a significant increase in earnings without a cent being

added to the retail price of the shirts they produce.

The excesses of many retailers have become so great that only action by governments can redress the situation and ensure that all garments marketed are clean. More power to Robert Reich and may his European counterparts please soon copy.

Neil Kearney, general secretary, International Textile, Garment and Leather Workers Federation, Rue Joseph Stevens 8, B-1000 Brussels, Belgium

Three-tiered EU is the answer

From Mr Adam Szarf.

Sir, One solution of the future relationship between the inner and outer cores of the European Union (Letters, December 5), consequent on the creation of the monetary union centred around France and Germany, might be the adoption of a three-tier membership of the EU.

One group of outer countries - unable or unwilling to meet the convergence criteria of the Maastricht treaty - would accept the discipline of a modified EMS, with exchange rates determined by mutual agreement with the inner core institutions.

Another group, bent on preserving undiluted national sovereignty, would be allowed to do so, but it would face a possibility of counter-measures applied against it, limiting undue trade advantages of one-sided devaluations.

The nature of such counter-measures, and their *modus operandi* would be a matter that should be addressed by the forthcoming intergovernmental conference next year.

This would facilitate the choice facing potential member countries, and would, incidentally clarify some questions recently posed by John Major, the UK prime minister.

Adam Szarf, 21 Av de la Renaissance, 1040 Brussels, Belgium

Best practices overlooked at Barings

From Mr Simon Barrow.

Sir, You argue ("Lesson trial", December 4) that "above all else, the Barings case has made clear that the threat of criminal conviction is no substitute for internal management controls". Could I add that "and no substitute either for best human resource and communication practice"?

This aspect has been glaringly overlooked throughout the entire Barings debacle. The Bank of England's report made no reference to it. That was a document about the absence of monitoring and measurement. It was a document based on the assumption that, if management of a complex business runs by the book, all will be well. The City needs to realise there is

much more to it than that.

Here are the questions that the Bank of England and others, including the press, should have been asking:

- What was Leeson's job description and what competencies was he expected to have?
- During the recruitment process, what aspects of Leeson's previous experience were deemed to make him suitable for this work?
- What kind of appraisal system existed and what, if any, action emerged from it?
- What were the Barings values in the UK and what prevented those being found in the Singapore office?
- How did the people in Singapore know what behaviour Barings expected of them?

This substantial and complex business seems to have been run without the aid of any fundamental employee research. The Barings management was flying blind on the "soft" issues as well as the "hard" ones.

Management is surely about promoting standards of behaviour that prevent weaker players from even thinking of actions that might lead to a long jail sentence and a distress sale of "damaged goods". New attitudes to best practice need to start at the top.

Simon Barrow, chairman, People in Business, 10 Bowling Green Lane, London EC1R 0BD, UK

EU-wide regulation of telecoms not feasible

From M. Guy du Parc Braham.

Sir, A single Euroregulator for a single market in telecommunications, as suggested by Mr Derek Coggrave (Letters, November 29), will not work for some years after the planned 1998 EU liberalisation, because:

- National frameworks of

competition law vary between member states as well as from the competition provisions of the EC [sic] treaty.

Telecommunications markets at different stages of development require different regulatory approaches. For example, the UK regulator, OfTel, is considering how to

withdraw from the kind of detailed regulation which has not yet started in most of the rest of the EU.

Guy du Parc Braham, Price Waterhouse Corporate Finance, No 1 London Bridge, London SE1 9QL, UK

Changing ticket to ride easy on Eurostar

From Malcolm L. Coates.

Sir, Amos Cohen's article "Train at the centre of a love-hate affair" (December 4) refers to the irritating problem of changing a supposedly flexible first-class Eurostar ticket.

I have had to do this twice in as many months and simply walked into the British Rail travel centre here in central Paris. I was neither obliged to buy a new ticket nor claim a refund.

In fact, the operation lasted

about two minutes and was carried out courteously and smilingly.

Malcolm L. Coates, 5, rue Ampere, 75017 Paris, France

Sensible to suggest that Nigeria will need international support

From Tunji Fahn.

Sir, It is unfortunate that Baroness Williams, the respected former UK cabinet minister and now a Harvard professor, should jump on the anti-Nigerian bandwagon sweeping the UK following the implementation of the judgment of a military court in Nigeria. Your editorial "Help

Nigeria" (November 24), put forward the sensible statement that "Nigeria's problems are susceptible to no quick fix. The country will need international support and assistance long after outrage has abated."

While opinions may differ as to the quality of justice in Nigeria, we do not require lectures by countries on what

action should be taken by the lawful government of our country in respect of dissidents. Whatever the chattering classes in Britain may think, the military government in Nigeria has proceeded according to its own light and those who continue to decry and condemn the country must realise that

whatever sanctions that may be imposed will serve to galvanise the country in its move to complete industrialisation of its economy.

Tunji Fahn, convenor, Nigerian Community Trust (UK), 30 Ambleside Road, London NW10 3UJ, UK

Personal View • Claudio Haddad

Real plan to end inflation

The success of Brazil's economic reforms may not last without further political action

& The introduction in July last year of the new Real currency appears to have led to a sharp improvement in Brazil's economic outlook.

It has brought inflation down from 40 per cent a month before the launch of the Real plan to an annualised rate of 12 per cent.

The reduction in inflation - which has greatly increased disposable income, especially among the poorest - is the longest-lasting decrease since Brazil began launching stabilisation plans in 1988.

At the moment, there are no discernible inflationary pressures, aggregate demand is contained, the trade account is balanced and the central bank has accumulated \$50bn in foreign reserves.

But it is too soon to say that Brazil has banished inflation. Much of the success of the Real plan can be attributed to high interest rates: while prices have risen 31 per cent since July 1 last year, the interbank rate has increased Real deposits by 76 per cent in the same period.

Unless interest rates can be eased, there is a danger that inflationary pressures will return, undermining the government's reforms.

So far, the very high interest rates set by the central bank have led to a 3 per cent appreciation of the Real since July last year, which, coupled with stringent credit controls, has capped demand.

They have also encouraged a sharp increase in capital inflows - mainly to finance trade - which has bolstered the country's foreign currency reserves.

The interest rate overkill can be explained as a precaution to reduce inflationary pressures - probably justified in the early stages of the Real plan. But it also reflects the fact that government spending is out of control.

Although tax revenues will reach a historic high this year at 30 per cent of gross domestic product, the government deficit will remain more than 7 per cent of GDP.

This deficit comes partly as a result of a substantial increase in current expenditure -

Unless interest rates can be eased, there is a danger that inflationary pressures will return, thereby undermining the government's reforms

fuelled by wage increases for government employees.

Real wages of federal government employees have risen from R\$18bn in 1993 to R\$38bn this year, and are likely to exceed R\$40bn next year.

But high interest rates have also contributed by putting up the interest burden on government debt, which has increased from R\$63bn in January last year to R\$140bn.

This is a classic situation of an overly restrictive monetary policy to compensate for an expansionary fiscal policy - and it is unsustainable.

Real interest rates much above the marginal return on capital place a heavy burden on the private sector, and cut investment to the bare minimum necessary to keep companies alive.

The resulting defaults are hitting the balance sheets of the commercial banks.

For the moment, these pressures are muted. The combination of increased currency reserves and high interest rates keeps attracting foreign capital, which finances the current account deficit.

Furthermore, inflation remains in check for the moment, helping the president pursue economic reforms such as privatisation and the ending of government monopolies. Unless there is a severe external shock to the economy, this could go on for many months.

And to reduce interest rates too much, as demanded by industry and agriculture, would mean disaster in terms of inflation. That would undermine President Fernando Henrique Cardoso's popularity,

which is based on his success in stabilising the economy.

However, there is no immediate relief in sight coming from the fiscal side. Additional spending is already planned to bail out some private and state-owned banks, refinance farmers' debts, subsidise sugar producers and even to resurrect the moribund programme to replace oil with fuel based on alcohol.

And although progress has been made in privatising state-owned companies in industries such as electricity and telecommunications, receipts will be slow to come and cannot be counted on to balance the government accounts.

Since there is no immediate danger to the Real plan, the government still has time to act. One course of action would be to ease fiscal pressures by pressing for fast approval of the government's administrative reforms to allow a reduction in the wage bill at federal and state levels.

Another step would be to put pressure on the states to force them to fund themselves at the expense of their local taxpayers instead of relying on federal transfers.

These are hard political choices but they are better than a return to inflation. What is fundamental is that the government should realise that the present success of the Real plan will not last, and that inaction will lead to disaster. The clock is ticking.

The author is chief executive of Banco de Investimentos Garantia, the Brazilian investment bank.

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ARTS

Television/Christopher Dunkley

Some real-life eye-openers

Do we really have to spend any time on *Inspector Morse: The Way Through the Woods*? It was competently made, though too long, and looked just like the previous *Inspector Morse* programmes. And what about all this Beatles stuff which has already received such quantities of publicity: is any of it telling us anything we did not already know? The early days in Hamburg, Ringo's auntie, the sessions at The Cavern, the Decca executive who decided not to give the group a contract - is this supposed to be news? Or an effort to boost bank balances which are down to their last few tens of millions? It is bad enough that television devotes so much time to this sort of unoriginal, uninformative, uninspiring material. What is worse is the readiness of newspapers to give vast amounts of space to promoting it before transmission, as though it were important and the papers were grateful handmaidens to the great god television.

Let us consider instead some of the programmes shown during the past week which have told us something we did not already know. The Channel 4 series *Secret Lives* is developing a wonderful line in iconoclastic biography. This is all the more refreshing given that television's usual line is hagiography (see that Beatles series, for instance). Last week director Madonna Benjamin and producer John Goddard turned the revisionist spotlight on Marie Stopes, birth control pioneer and author of *Married Love*, a sex manual which, when I read it in 1959, still seemed progressive and daring even though it was then 41 years old.

This programme showed that good old gutsy tell-it-like-it-is Marie wrote the book while still a virgin. It seems that she acquired her expertise while searching in the British Museum for evidence to support her claim of non-consummation of her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife when she chose a girl from the grounds of her "disability", she more than made up for her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife when she chose a girl from the grounds of her "disability", she more than made up for her own marriage. That was a bit of an eye-opener, but there was worse to come. It turns out that she was a megalomaniac and a bully, with beliefs on racial purity that would have delighted Adolf Hitler. Not only did she believe in eugenics, she forced her son to wear woolly knickers for fear that conventional garments would harm his genitals, and hysterically opposed his choice of wife when she chose a girl from the grounds of her "disability", she more than made up for her own marriage.

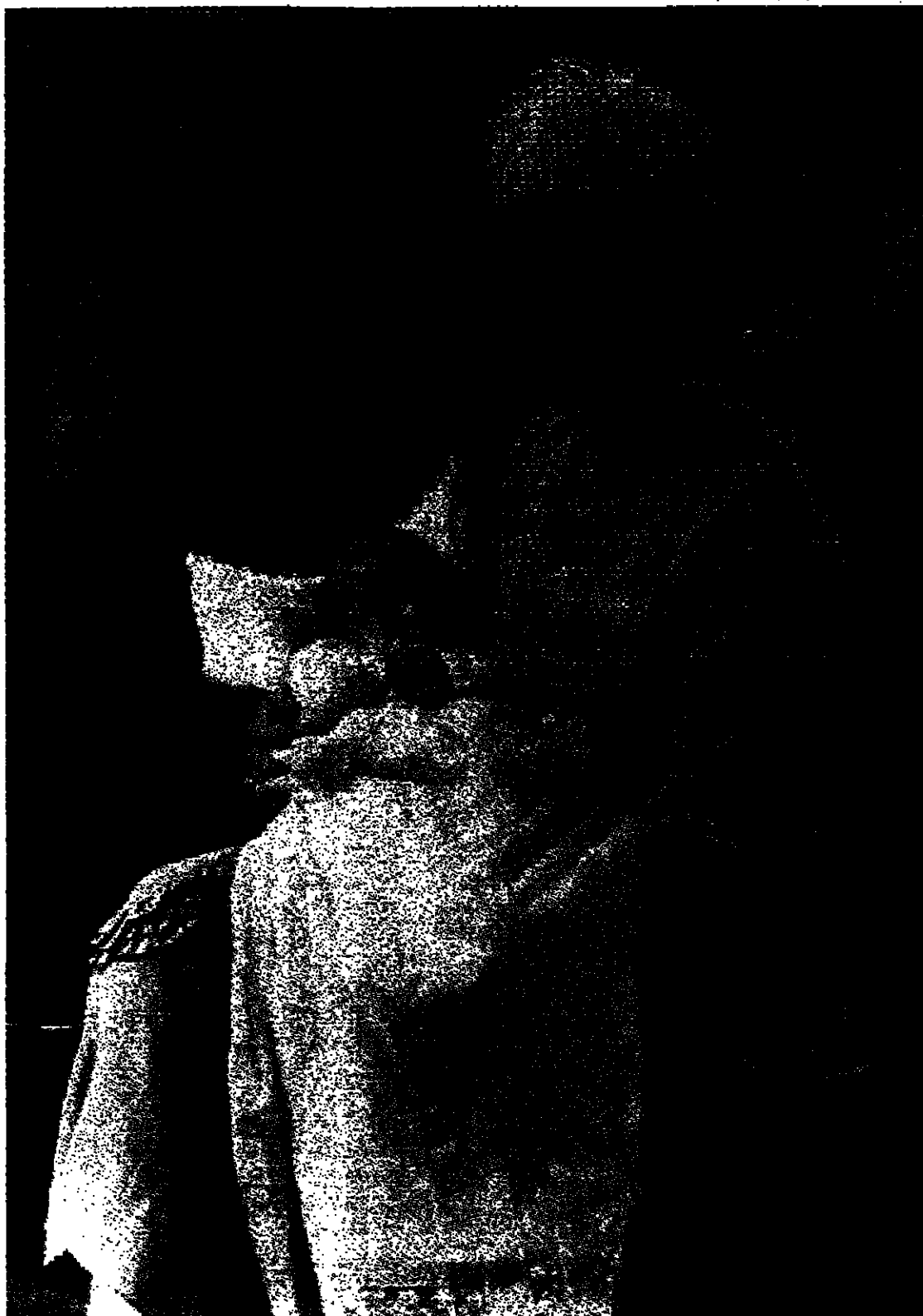
Like several previous episodes in *Secret Lives* that was eye-opening. So is *The Factory* on Channel 4, a fly-on-the-wall series made by Paul Watson,

producer of *The Family and Sylvia Waters*. This is less sensational, yet possibly the best thing Watson has ever done. Perhaps people from the gas fire factory in Liverpool will tell us it is unfair, yet they must, presumably, have agreed to have the cameras in. The entire series has looked like one of those "How not to do it" training films. If you showed it to the Japanese they would think it was a sitcom. The workers' canteen has been closed. The lavatories are appalling. The nurse has been dismissed. Practically the entire workforce seems to suffer from repetitive strain disorders of one sort or another. Television tells us so little about one another's working lives that it is hard to know whether this factory is a lone survivor from a Dickensian past, a pretty typical example, or something in between. Even if it is unique, which seems highly unlikely - this is a valuable series.

You would not apply the word "valuable" to *Eurotrash*, yet there is no denying its originality. In the beginning - presented by Antoine de Caunes, ze man wiz ze verre theek (yet undeniably splendid) accent - it was a European television version of the old weekly tabloid *TV Bits*, full of items that could be headed "Just Fancy That", with a leaning towards the titillating.

Now, presented by de Caunes in harness with Jean-Paul Gaultier, it operates under the title *Eurotrash: The World Tour*, goes anywhere, and concentrates almost exclusively on sexual oddities. For Friday's edition (meaning the producers, not de Caunes and Gaultier who front the whole thing from a studio) went to Japan to show us the Festival Of The Penis, a TV weather girl with flip-up metal bra cups, and a dog-dating agency. The tone is mocking and much of the material trivial, yet in half an hour of *Eurotrash* you are likely to hear ten times as many things you did not know as in all the recent Beatles programmes laid end to end. You are likely to laugh a lot more, too.

Assignment on BBC2 provided a disturbing report on small town America. A visit to Kalspell in Montana revealed a real-life *Twin Peaks*. On the one hand there are the religious nutters who fire-bomb the abortion clinic and send their children to schools where they shoot down god into the maths lessons. On the other hand there are growing numbers of in-comers who are retreating to the Rockies from hotspots in California and elsewhere and who tend to be liberals, feminists, and homosexuals. This is the sort of place where many believe passionately in the famous misinterpretation of the "right to bear arms" phrase in the constitution and belong



Marie Stopes, the birth control pioneer, with her son: according to Channel 4's 'Secret Lives' she was a megalomaniac and a bully and wrote 'Married Love' whilst still a virgin

to private militias. They see attempts to tighten up the gun laws as preparation for the UN (yes really, the United Nations) to take over the US.

Some viewers will know the country well enough to be familiar with attitudes in the boondocks without a programme such as this, but for most of us it will surely have been illuminating. Much the same can be said, I suspect, for Irvine Welsh, subject of *In Your Face*, also on BBC2. Having

seen his books (*Trainspotting*, *The Acid House*, *Murder on the Rock*) stacked high in the shops, and read the profiles of him, we are aware of his existence but not too sure about the sort of thing he writes. This programme made it abundantly clear: a latterday William Burroughs, capable of conveying the experience of the Scottish junkie from the inside, Welsh himself appeared, explaining that "drugs of choice" changed in the 1980s

from the legal (alcohol and tobacco) to the illegal (heroin and crack). And critics and admirers appeared, explaining why they find his work unusual and compelling. It would take a stubbornly resistant viewer to watch this programme and at the end not want to sample at least one of Welsh's books.

Is there anybody who could be similarly turned on to the Beatles by all those documentaries?

Theatre/Alastair Macaulay

Rare Shaw revived

In 1933 and at London's Arts Theatre in 1945, Sam Walters's new staging at Richmond's Orange Tree Theatre may be London's first public production of it. Shaw did not have in mind a theatre where the audience sits on all four sides of the stage, and where there is virtually no scenery. In the event, however, this setting enables us to concentrate all the more on Shaw.

He was, among other surprising things, a multiculturalist. Modern audiences at first may be nervous when they hear some characters use the words "nigger" and "Jew boy", but it soon becomes clear that Shaw's only prejudice is against Eurocentricity.

"Polygamists form the vast major-

ity of the subjects of the British Empire," Prola, the beautiful local earth-mother type, tells the young simpleton. "Try to remember that, and that you are not in Clapham." Prola and Hyering are two of six adult characters who have reared four divine superchildren, Maya, Vashiti, Janga and Katchin who are physically perfect, but with no scrap of moral conscience. Young Hammingtap has only too much conscience: a true holy fool. Perhaps, with Maya and Vashiti, he will breed superchildren of a yet higher order; and so Act One ends.

But Shaw was as sceptical about eugenics as he was about everything else. *The Simpleton of the Unexpected*

Isles will prove more entertaining if you do not know what happens. The entertainment has a serious dimension. As always, Shaw is engaged with what is the best way to live. We assume at first that the *Unexpected Isles* are a kind of Utopia; we realise eventually that they are the whole world. Hugo Hyering's wife constantly trots out the catchphrase "Let life come to you"; she does not always mean it, but Shaw does - except that he also believes in the reverse, in letting yourself come to life.

Kate O'Mara plays Prola. She is so much more to say about her figure and her maquette than about her acting. "Surprise and wonder are the very breath of my being" are not

words that ring true from a woman who looks like the prize product of a whole team of hard-working beauticians.

Read Rawl brings simple dignity to the role of Pra, and the fresh-faced wide-eyed Christopher Staines is well cast as the simpleton. "I am weak-minded and lose my head very easily," he says in an adorable speech.

Some of Shaw's weaknesses are apparent. His brand of feminism led him, for example, to make Prola rather too obvious and simple a super-earthmother; and, the charming artifice of the play's talk keeps it always in Never Never Land. And so what? I do not mean it entirely kindly when I call *The Simpleton* a harmless play; but I am very glad to have seen it. Shaw's weaknesses are much more admirable than most playwrights' virtues.

At the Orange Tree, Richmond, until January 27.

Concerts/David Murray

Solti honours Bartók

Sir Georg Solti's round of Bartók at the Barbican concluded last Sunday, but its peak came on Thursday with *Duke Bluebeard's Castle*. This extraordinary one-act opera usually goes well in a concert performance; the "action" is entirely psychological, and fully rendered - in all its sinister ambiguity - by Bartók's searing score.

As Bluebeard, Solti had the Hungarian bass László Polgár, a brooding presence with a noble voice, equal to any challenge from the large orchestra (here the London Symphony in top form); perfect in this role, Julia Varady's Judith was brave and intelligent. Around them, Solti spun a glittering web, fluent and impassioned beyond the norm.

In this early masterpiece (first drafted in 1911, and Bartók never wrote anything much like it again) the music is laid out in sections, like successive panels of a frieze, and that is most often how conductors play it. With the boldness of long experience, Solti swept many distinct sections up into great dramatic curves: there seemed to be more long-breathed spans than one had ever realised. Sometimes his intuitions crossed the strict letter of the score, but who would argue? This was an electrifying performance.

Entertainingly, the Barbican had unearthed a Michael Powell television-film of the opera, made at Salzburg in 1964. Sadly, it proved on Sunday to be no great shakes: good soloists (Norman Foster and Ana Raquel Satre) all too obviously dubbed, over a dull orchestral

reading that was ill-recorded, shrill and choked. Visually, there was one small, irrelevant trisom when swords stabbing toward Judith from all round the frame suddenly recalled Powell's *Peeping Tom*.

Otherwise, the film combines absurdly intrusive décor with Hollywood-stagey handling of the principals. The text is credited to Béla Balázs, but the "text" Balázs - who later became an important film-theorist - gave Bartók included not only the words but a detailed visual scenario, stark and plain: Powell's arty mess would have made him ill.

András Schiff figured in both of these Solti concerts: in the second of Bartók's piano concerti on Thursday, and for Sunday's chamber-music concert his exuberantly inventive Sonata for two pianos and percussion, with young Dénes Várjon as partner and Solti as self-effacing conductor. In both works Schiff's light-fingered touch and agile wit, which put an off-line spin on many a phrase (nicely echoed by Várjon), were charming.

I confess an unshakable loyalty, however, to the Bartók's own (Bartók and his second wife's) reading of the Sonata, which they deliver firmly, evenly and rather bluntly, though with robust good humour. The vital structure emerges better without local distractions. This is not Romantic music, nor is the 2nd Concerto - in which, incidentally, Solti and Schiff often tended to part rhythmic company.

Chamber-concert sponsored by Mrs Jackie Rosenfeld.

Opera

A static 'Aida'

New just a year and a half ago, Elijah Moshinsky's serviceable, all-purpose production of Verdi's opera has already had several disparate casts. The singers the Royal Opera engaged for it kept dropping like flies. Partly as a result, his *Aida* has not yet enjoyed a strong, consistent team of soloists who could justify Moshinsky's budget-wise rejection of the usual grandiose pomp. The latest cast is pretty disparate too, though it has its fine moments.

Danielle Gatti conducts an instantly up-tempo *Aida*, indifferent to poignant sentiments of the preludes but attentive to the urgencies of the action. His soloists are another motley crew. The American tenor Michael Sylvester delivers a mature, full-hearted Radames, lyrically unimpressive in "Celeste Aida" but virile and musical later on. Like most tenors, he is not flattered by Covent Garden's flat acoustic; we only began to appreciate him properly when he had a front-stage backdrop close behind him.

As Amneris, Nina Terentiev again sings her Italian *à la Russe*: guttural, exciting and quite unintelligible, except in cries of "Amore!" She has to wait for the Act 3 scene to exploit her grand mezzo range. Simon Estes, the black American *Heldenbaron* whom we know already in Wagner roles,

makes a taut, forceful Amneris. The high priestess Peter Rose exerts a pleasant, cultivated bass where something blacker is *de rigueur*.

In *Aida* cartoon-characters can be apt enough, so long as they seem to live and breathe. That, however, requires palpable interaction, beyond what the rehearsal-schedule seems to have permitted. The new *Aida*, the American star Sharon Sweet, is a case in point (undimmed by any trace of an Ethiopian tint, probably through "p.c." sensitivity winning over dramatic sense). A large soprano in both senses, she moves with dignity and extreme decorum; expressive gestures need slow, careful planning and execution, and are therefore rather infrequent.

Watching *tableaux vivants* may have been like this. Any spontaneous feeling is represented decorously, in naive semaphores, and too late to matter: too late to find any friction in her confrontation with Amneris, or in the crucial set-to with Radames. Miss Sweet gives good concertaria, but she is no operatic actress. We had to be content with the incidental delights of her musically art, strong-voiced if not remarkably beautiful. There is more to *Aida* than that.

D.M.

At Covent Garden until December 30.

INTERNATIONAL ARTS GUIDE

AMSTERDAM

CONCERT
Concertgebouw
Tel: 31-20-5730573
● Radio Kamerorkest: with conductor Peter Ešvós, tenors Peter Hall and Valery Serkin, basses Gert-Jan Alders and Jan Aerts, and Maria Fabian on cymbals perform works by Stravinsky, Beethoven, Berlioz, Kodaly and Schubert; 8pm; Dec 9

EXHIBITION
Stedelijk Museum
Tel: 31-20-5732911
● Metz & Co.: The creative jaren: this exhibition focuses on the "department store of the avant-garde" Metz & Co. Between 1920 and 1960 several architects, furniture designers and artists were commissioned to create products for this firm; from Dec 9 to Feb 18

BERLIN
CONCERT
Komische Oper Tel: 49-30-332600
● Orchester der Komische Oper: with conductor Lehar Zagrosek

perform works by Stravinsky, Hindemith and Bruckner; 8pm; Dec 7

Konzerthaus
Tel: 49-30-203092100/01
● Berliner Sinfonie-Orchester: with conductor Matthias Jung, the Dresden Kreuzchor and tenor Markus Brucher perform Britten's "Saint Nicolas" and Dostoevsky's "Die Weihnachtsgeschichte"; 8pm; Dec 9, 10, 11

● Philharmonie & Kammermusiksal
Tel: 49-30-254880
● Berliner Philharmonisches Orchester: with conductor Claudio Abbado and pianist Maurizio Pollini perform Brahms' "Piano Concerto No.2" and R. Schumann's "Symphony No.3"; 8pm; Dec 7, 8, 9

BRUSSELS
CONCERT
Palais des Beaux-Arts
Tel: 32-2-5078466
● Koninklijk Concertgebouw: with conductor Gennady Rozdostvensky and cellist Yo-Yo Ma perform Dvorak's "Cello Concerto in B minor" and Prokofiev's "Symphony No.5"; 8pm; Dec 9

CHICAGO
EXHIBITION
Museum of Contemporary Art
Tel: 1-312-280-2660
● Andres Serrano: Works 1983-1993: the first major mid-career retrospective of Serrano's large-scale Cibachrome photographs, featuring more than 50 works created during the last 10 years. Serrano's work often examines controversial subjects

such as religion, racism, homelessness and death; from Dec 9 to Feb 4

COPENHAGEN
DANCE
Det Kongelige Teater
Tel: 45-33 14 10 02
● The Triumph of Death: a choreography by Flemming Flindt to music by Thomas Koppel, performed by the Royal Danish Ballet. The ballet is based on Ionesco's play "Jeux de Massacre"; 8pm; Dec 8

FRANKFURT
THEATRE
Schauspielhaus
Tel: 49-69-21237444
● Heidenplatz: by Bernhard. Directed by Peter Eschberg and performed by the Schauspiel Frankfurt; 7.30pm; Dec 7, 8

HANOVER
THEATRE
Niedersächsisches Schauspielhaus
Tel: 49-511-1886146
● Ivanov: by Chekhov. Directed by Hartrud Wickert and performed by the Niedersächsisches Schauspiel (in German); 7.30pm; Dec 7

LONDON
AUCTION
Sotheby's; Parke Benet & Co.
Tel: 44-171-4938080
● The Dr Otto Schäfer Collection Part IV - The Jean Fürstberg Collection of 18th-Century French Books: the fourth sale from the

library of book collector Dr Otto Schäfer comprises the collection of 16th and early 18th-century French books which Dr Schäfer acquired on bloc from his long-time friend and fellow bibliophile Jean Fürstberg in 1974. Highlights of the sale include Charles Hersent's "Optati Galli de cavendo schismate", published in Paris in 1640. Cardinal Richelieu ordered all copies of this book to be burned, because it described the power struggle between the French and Roman churches; 10.30am; Dec 7, 8

CONCERT
Purcell Room Tel: 44-171-9604242
● Klezmer Swingers: Wallace Fields, Ron Findon, Alan Berlyn, Murray Salmon and Malcolm Ball trace the cultural development of Jewish music from the dawn of Odessa to the speakeasies of New York in the 1920s; 7.30pm; Dec 7

ROYAL FESTIVAL HALL
Tel: 44-171-9604242
● The London Philharmonic: with conductor Alexander Lazarev perform Rimsky-Korsakov's "The Story of Tsar Saltan", Prokofiev's "Piano Concerto No.2" and "Les Tchaikovsky's "Francesca da Rimini"; 7.30pm; Dec 8, 15

Wigmore Hall Tel: 44-171-9352141
● Gabrieli Consort & Players: with conductor Paul McCreesh perform works by J.S. Bach; 7.30pm; Dec 7

DANCE
Royal Opera House - Covent Garden Tel: 44-171-2401200
● The Royal Ballet: perform the choreographies "Apollo" and "Duo Concertant" by Balanchine, "Sideshow" by MacMillan and "Fearful Symmetries" by Page; 7.30pm; Dec 7, 14

EXHIBITION
Whitechapel Art Gallery
Tel: 44-171-5227898
● Emil Nolde: exhibition of the work of the German Expressionist Emil Nolde (1867-1956). The display contains paintings, watercolours, drawings, prints and applied art objects, and takes in the whole range of Nolde's career and themes, including his symbolic landscapes and religious scenes, his depictions of the cabaret and city life, and his interests in the erotic and the grotesque, in primitivism and race; from Dec 8 to Feb 25

LOS ANGELES
DANCE
Wadsworth Theater
Tel: 1-310-825-2101
● Nederlands Dans Theater 3: perform choreographies by Kylian; 8pm; Dec 8, 9

NEW YORK
CONCERT
Avery Fisher Hall
Tel: 1-212-875-5030
● I Musici: perform Christmas Concert of the Italian Baroque, including works by Corelli, Manfredini and Vivaldi; 7.30pm; Dec 10

EXHIBITION
The Metropolitan Museum of Art
Tel: 1-212-879-5500
● Haute Couture: a technical examination of the quality and properties of haute couture, using The Costume Institute collection. Designers from the House of Worth to the present are included in this exhibition intended to highlight couture detail and tailoring;

from Dec 7 to Mar 24

PARIS
CONCERT
Salle Pleyel Tel: 33-1 45 61 53 00
● Orchestre Symphonique Français: with conductor Laurent Petitgand and pianists Michel Beroff, Jean-Philippe Collard, Gabriel Tacchino and Bruno Rigault perform piano concertos by J.S. Bach; 8.30pm; Dec 11

SALZBURG
EXHIBITION
Rupertinum - Salzburger Landesausstellungen
Tel: 43-662-80422336
● Die göttliche Komödie: exhibition of some 100 works produced by Markus Vallazza in recent years; from Dec 7 to Feb 18

VIENNA
CONCERT
Konzerthaus Tel: 43-1-7121211
● Mara Zampieri: gala performance by the Italian soprano. With the ORF-Symphonicorchester conducted by Alexander Rahbari; 7.30pm; Dec 7

WASHINGTON
CONCERT
Terrace Theater
Tel: 1-202-467 4600
● Muir String Quartet: with harpist Heidi Lehtwälder, violinists Peter Zazofsky and Wei-Pin Kuo, viola-player Steven Ansell and cellist Michael Reynolds perform works by Haydn and Brahms, and the premiere of Silver's "Harp Quintet (From Darkness Emerging)"; 7.30pm; Dec 7

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07.00
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17.30
Financial Times Business Tonight

Midnight
Financial Times Business Tonight

الرياض ١٤١٦

González warns on EU plans for enlargement

By Quentin Peel and David White in London

The European Union has failed to prepare any strategy to deal with the looming prospect of up to 12 new member states, Mr Felipe González, the Spanish prime minister, warned yesterday.

All the remaining potential members from central and eastern Europe were expected to table their membership applications before the end of the year, to join the queue behind Cyprus and Malta, he said.

Political pressure for negotiations to begin by 1998 "will become irresistible", he warned in an interview.

"It is inconceivable that we should negotiate with Cyprus and Malta and not with Poland or the Czech Republic," he said. "It makes little sense."

Mr González, who currently holds the six-month presidency of the European Union, was in London for pre-summit talks with Mr John Major, the British prime minister. He said almost all the new applicants would be attending the EU summit in Madrid next week, seeking a clear timetable for enlargement.

Spanish PM says member states have failed to prepare strategy

"I am afraid we have no answer to that yet," he said. The current member states were "rather disconcerted" about the whole question of enlargement.

"Nobody has started to prepare a strategy for enlargement," he said. "There is no criterion for how we should go about the process." He warned that the process would certainly cost the existing member states more in terms of their budget contributions, although he insisted it would be less than many estimates.

"Enlargement will cost money, but much less than is said, and much more spread out over time, because there will be an adaptation process lasting 12 or 15 years," he said. "You cannot have the same budget for a union of 25 as you do for 15."

He said the 10 or 12 new applicants had a combined gross domestic product roughly the same as that of the Netherlands, or half that of Spain.

At the same time he warned that national parliaments would

refuse to ratify any enlargement deal, if too much of the burden fell on farmers and the Common Agricultural Policy.

Mr González said the agenda for the EU summit on December 15 and 16 included decisions on the transition process to the final phase of European economic and monetary union, including naming the future single currency.

He suggested a consensus might be reached on calling it the "Euro", as in Euro-mark or Euro-ranc, although he admitted to his own caution about that name.

"We have received hundreds of letters in favour of the Real," he said.

The EU leaders also have to give guidelines to next year's planned intergovernmental conference, which is supposed to agree on the next phase of institutional reforms of the union.

Report points EU on path to change, Page 2; EU pact heads off action, Page 5; This pact's not for turning, Page 15

Gingrich predicts crash if no deal on budget

By Christopher Parkes in Washington

US interest rates will rise sharply and stock markets crash if Congress and President Bill Clinton fail to strike a bargain on balancing the federal budget, Mr Newt Gingrich, speaker of the House of Representatives, warned yesterday.

Postponement would signal to the electorate that government had failed to grasp the best chance "in a generation" to balance the budget, he told a meeting of the American Medical Association in Washington.

Mr Gingrich was speaking as bipartisan negotiations aimed at breaking the deadlock entered their second week after an unsuccessful round of talks last week.

Warning of a "big downside" if talks collapsed, he said later that his claims of a violent reaction in financial markets reflected recent remarks by Mr Alan Greenspan, chairman of the Federal Reserve.

Mr Greenspan has consistently warned, in less apocalyptic terms, of negative consequences if the budget impasse turned into surrender in the effort to reach a balance. However, he has also pointed to conditions in bond and stock markets which reflect the underlying assumption among traders and financial strategists that a deal will be done.

The White House last week offered to accept many of the spending cuts proposed by the Republicans. But senior Democrats said a deal before Christmas was still unlikely, although it might then be clear if it would be worth continuing negotiations in the new year.

Although he did not mention a December 15 "deadline" when temporary federal funding is due to run out, Mr Gingrich yesterday appeared to suggest that it should be set aside while a concerted bid was made to reach a conclusion.

"The president and members of Congress ought to settle down right now... and we ought to stay as long as it takes to do our [budget balancing] job," he said.

Republicans involved in yesterday's resumed bipartisan negotiations said that they intended to try to attract support from a group of conservative Democrats, known as the Blue Dogs, and hopefully increase the leverage on Mr Clinton.

The 21 Blue Dogs have recently unveiled their own budget-balancing plan. Although they share the Republican goal of balancing the federal budget by 2002, they reject most of their tax-cutting proposals.

Mr Robert Dole, leader of the Republican majority in the Senate, has again raised the spectre of a governing shutdown in the absence of a deal. The prospect would have to be faced, he said, in the absence of a serious offer from the White House.

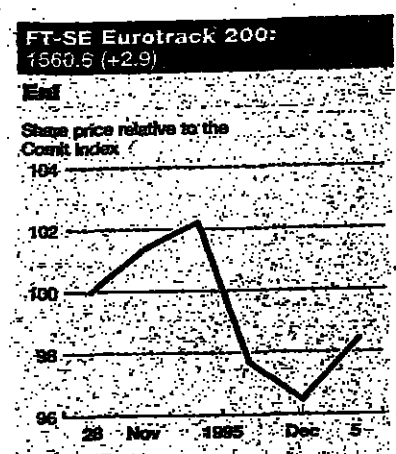
THE LEX COLUMN

Eni takers?

The Italian treasury has not delivered the success it needed. With a string of further privatisations lined up, it was important that the sale of 15 per cent of Eni, the oil and gas giant, went well: that is why the treasury pitched the offer at the bottom of its indicative range, and sold only 15 per cent of the company. Yet caution has not been rewarded with a healthy after-market: on the contrary, the share price has dropped. True, the Italian market has fallen since the offer price was set. But this excuse is unlikely to cut much ice with institutions which thought they were buying an international oil company - or for that matter with Italian retail investors.

From one perspective, the offer price was attractive. On a cash-flow basis, it looked cheap compared with the big oil majors. But the comparison is deceptive. For one thing, Eni has been gearing by the standards of the oil sector. And it is concentrated in a single market - making it more vulnerable to companies like Repsol, Elf and Total, with multiples at the low end of the sector, than to genuinely international businesses like Exxon or British Petroleum. On this basis, adjusting for Eni's high debts, the current price looks fair.

Of course, it is early days yet. If, for instance, the Italian political situation stabilises or interest rates are cut, it would help boost the share price. That in turn could rescue some of the battered credibility of the privatisation programme. But the treasury cannot bank on it.



notorious, hence the tardy integration of Morgan Grenfell by Deutsche Bank. In the long run, WestLB's strategy may prove the wiser. The move of its trading operations to London earlier this year may seem to have come rather late in the day. But WestLB has a reputation for market savvy unusual among German banks. It may not be buying companies, but it is buying people, for example a team of swaps traders in New York.

A link with Bank Austria would give WestLB extra muscle in eastern Europe, where it is already active. Intriguingly, both banks already have a tie with Italy's Cariplo. Unfortunately, none of this will help alleviate pressure in the domestic market.

German banks

Westdeutsche Landesbank's plans for a co-operation agreement with Bank Austria reinforce the divergence of its strategy from other German banks. At a time when Germany's largest banks, squeezed by competition in their domestic market, are all expanding overseas, WestLB is the only one trying to do so without making sizeable acquisitions. Others, like Dresdner, have been willing to pay high prices for investment banks and asset management groups in an effort to improve their return on equity, which is substantially lower than that of UK and US banks.

The danger for these German banks is not only that they could be overpaying. In the case of investment banks, earnings are unpredictable and the main assets, their staff, can disappear overnight. The clash of investment and commercial banking cultures is

Siebe

At a time when manufacturers are tripping up with ominous regularity - yesterday's downturn trading statement from BTR is the latest example - Siebe has turned in another impeccable set of results. The group's 11 per cent organic sales growth is impressive in the face of de-stocking and sluggish economic growth. Demand for its temperature and appliance controls has been hit by soft housing and car markets in the US. But Foxboro, which builds large factory automation systems and is growing at 20 per cent, more than made up for that. Meanwhile, the smaller diversified products arm is recovering after two years of restructuring.

Siebe's growth looks sustainable. Its markets are expanding as electro-mechanical controls for washing machines and the like are replaced by electronic ones. The group is moving

rapidly into the Far East and South America. And it is taking market share from smaller producers which cannot afford its high research and development spending. Cash generation continues to be good.

Over the past two years, Siebe has defused worries over its accounting policies and management succession. Margins of 14 per cent will be hard to screw higher but their consistency since 1991 suggests the business is less vulnerable than most to another recession. After a 50 per cent rise this year, the shares command a 15 per cent premium to the market. At this level, a rights issue to fund a big acquisition must look tempting. But as a safe haven in the engineering sector, Siebe is hard to beat.

Racal

The market's enthusiasm for Racal Electronics' purchase of British Rail Telecommunications (BRT) is justified: the rebalancing of the company towards communications network services should help restore its fortunes. BRT will help Racal's communications muscle substantially, and should help it provide services more cheaply. Since only 20 per cent of BRT's capacity is currently being used, Racal will be able to compete aggressively for new contracts with large companies. Meanwhile, BRT's existing contracts provide a high quality of earnings, with operating margins of 10 per cent.

The deal will enhance earnings immediately, and should make a significant impact in 1997. The initial rise in gearing to close to 100 per cent should therefore not be a concern. The positive outlook for Racal's rapidly growing communications network services should not, however, blind investors to the company's persistent difficulties in the area of data products. Racal's half-year results yesterday showed that this business remains in the red. The problem for Racal in the past has been that it has offered a broad range of rather undistinguished products which have had to be sold at discounts. The company claims that its new head of data products has focused the business on three main product areas where it can achieve market leadership; but such claims should be treated with scepticism. This market is full of pitfalls - as this year's disaster story from Gray Electronics has shown.

Additional Lex comment on Incheague, Page 24

Tighter collaboration urged for European defence groups

By Bernard Gray in London

The European defence industry must collaborate more closely and rationalise if it is to survive as a global competitor, according to a new report yesterday from a group of British MPs.

It urges the UK's Ministry of Defence and Department of Trade and Industry to take a more active role in promoting alliances between European defence companies. It also wants the UK government to take a more prominent part in creating an open defence market within Europe.

Rejecting the ministry's current, "even-handed" approach calling for co-operation with both the US and European industries, the report argues that Britain must ally itself with Europe.

Because the US does not accept foreign partners, except as subcontractors, the MPs say Britain has no choice but to work with other European countries to

maintain the capacity to produce complete complex systems, such as fighter aircraft.

The MPs from two powerful House of Commons committees, trade and industry and defence, also say it is essential Britain joins any future European armaments agency at its inception to help co-ordinate arms purchases and requirements between the large European states. Currently France and Germany are negotiating a bilateral arms agency which might exclude the UK.

The committees also criticise the passive approach of the defence ministry towards Britain's defence industry and the need for consolidation in Europe. They say the ministry needs to identify critical technologies which will underpin Britain's capability to manufacture high-technology weaponry. In deciding on which equipment to buy, the ministry should ensure that these tech-

nologies will be maintained.

The committees also claim that a healthy domestic defence industrial base is important to provide back-up for the armed forces in case of war. It cited modifications carried out to British equipment during the Gulf war to enable the army to fight in desert conditions as an example of how industry could help the ministry.

The ministry said it would comment on the report in due course. It has shifted its emphasis from purely competitive ordering towards considering the maintenance of an industrial base because the number of manufacturers is shrinking quickly.

Mr James Arbuthnot, the defence procurement minister, said recently that he did not think the MoD had a role to play in facilitating the rationalisation of the European industry.

Missile tenders invited, Page 8
Editorial Comment, Page 15

France edges closer to Nato's military wing

Continued from Page 1

"nuclear planning" groups of the alliance which have provided the forum for most gatherings at defence minister level.

The onus will therefore be on France's partners to provide some new institution in which Paris can participate without compromising its refusal to participate in the integrated military structure of the alliance.

French officials said the reason

General Charles de Gaulle quit the alliance's military command nearly 30 years ago remained - Paris was still reluctant to subordinate itself to military structures which were "undemocratic" and compromised its sovereignty.

However, with yesterday's gesture, Paris has signalled its willingness to take part in alliance structures when they are reformed.

For the past three years, France has attended Nato's

annual informal gatherings of defence ministers and a French general already attends meetings of Nato's military chiefs, though he comments only on subjects which directly concern France, such as peacekeeping in Bosnia.

Yesterday's decision will allow the French general to broaden the range of topics on which he speaks, but Paris will abstain from comment on issues such as military operations which do not include French troops.

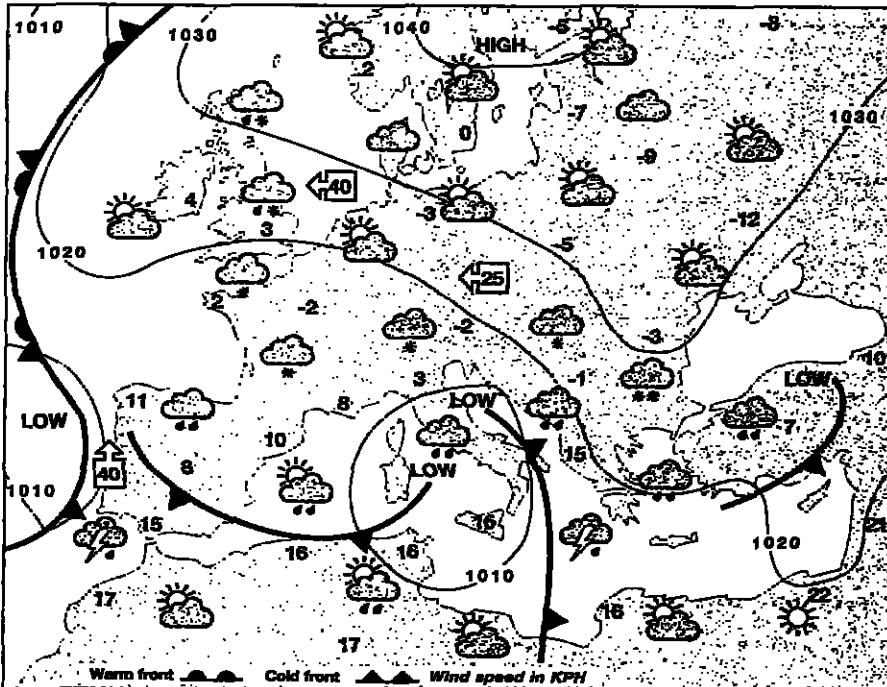
FT WEATHER GUIDE

Europe today

The Benelux, Germany and northern France will have moderate to fresh cold easterly winds with cloud and patchy snow and afternoon temperatures below freezing. Northern sections will also have sunny spells. The UK will be rather cloudy with snow or sleet in the east. Southern France and eastern Spain will have sunny periods. A frontal zone over western Spain and Portugal will produce cloud and rain. An active low pressure system will move from Italy into south-eastern Europe. Cloud and rain will affect Italy, Greece and the coast of former Yugoslavia. The Czech Republic and Bulgaria will have snow. Poland and Rumania will stay dry with sunny spells.

Five-day forecast

A series of low pressure systems will remain active in the Mediterranean, bringing unsettled conditions from Spain to Greece. Northern parts of the continent will have sunny spells. Snow will occur in some places tomorrow. Temperatures will stay far below seasonal values, even below freezing.



TODAY'S TEMPERATURES

Location	Max	Min	Location	Max	Min	Location	Max	Min	Location	Max	Min
Abu Dhabi	31	21	Beijing	-1	-11	Caracas	30	15	Madrid	10	4
Accra	30	21	Belfast	-3	-13	Cardiff	17	10	Manila	30	26
Algiers	16	8	Berlin	-3	-13	Casablanca	17	10	Moscow	13	7
Amsterdam	10	5	Bogota	24	19	Chicago	-2	-12	Rio	28	22
Athens	15	8	Bombay	32	28	Cologne	10	4	Rome	12	6
Atlanta	12	5	Brussels	10	4	Dakar	28	22	S. Francisco	15	10
B. Aires	32	22	Budapest	10	4	Dallas	18	12	Seoul	10	4
Bham	10	4	Chengdu	10	4	Delhi	28	22	Singapore	29	23
Bangkok	31	24	Cairo	22	16	Hong Kong	25	19	Stockholm	10	4
Barcelona	10	4	Cape Town	24	18	Hankow	21	15	Sydney	24	18
						Helsinki	10	4	Taipei	21	15
						Jakarta	31	25	Tokyo	12	6
						Johannesburg	18	12	Toronto	10	4
						Kuala Lumpur	31	25	Vancouver	8	2
						Kuwait	18	12	Venice	10	4
						L. Angeles	21	15	Warsaw	10	4
						Las Palmas	22	16	Washington	10	4
						Lima	23	17	Wellington	10	4
						Lisbon	18	12	Winnipeg	10	4
						Luxembourg	10	4	Zurich	10	4
						Lyons	10	4			
						Madeira	19	13			

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IN BRIEF

BTR cautious on full-year profits

BTR, the industrial conglomerate in the final stages of a complex restructuring, warned its profits would not meet expectations. It blamed the anticipated shortfall on the performance of its Taiwanese polymer plant and a slowdown in its construction and automotive markets. Page 23

Vebs close to multimedia network launch
Vebs, the German conglomerate, said it expected to receive a licence within the next three weeks to hook up 10,000 households in the Ruhr region with a multimedia network. The move will underscore its efforts to become one of the biggest telecom operators in Germany. Page 18

Reliance drops Bombay delist threat
Reliance Industries, India's biggest quoted private company, has dropped its threat to delist from the Bombay stock exchange. Page 20

Stakes high in Mexico's beer market
Femsa, Mexico's largest drinks company, has expanded aggressively in the drinks business. But a conservative strategy has served Grupo Modelo, the country's largest brewer, well. So who will win at Grupo Modelo's Corona and Femsa's Sol sing it out? Page 21

Software suppliers vie for Net supremacy
Sun Microsystems, Silicon Graphics and Netscape Communications have launched a range of software and alliances aimed at bringing 3D images and interactive multimedia to the Internet, the worldwide computer communications network. The announcements were timed to pre-empt Mr Bill Gates (left) unveiling Microsoft's Internet strategy tomorrow. Page 22

Australia hit by fresh nickel rush
Nickel fever is gripping Western Australia following the discovery of a rich deposit 45km from Kalbarrie. Page 37

Racal confirms telecoms purchase
Racal Electronics confirmed the purchase of British Rail Telecommunications for £132.75m (\$210m) as the data communications and electronics group reported a 28 per cent profits rise. Page 23

Siebo continues on acquisition path
Siebo, the international controls and appliances group, said it would continue with its aggressive acquisition strategy after spending more than £68m (\$106m) on subsidiaries in the first half. Page 23

Inchcape to drop out of FT-SE 100
Inchcape, the international marketing and services group, is expected to be relegated from the FT-SE 100 index of UK's leading companies after a profits decline and poor share performance. Page 24

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Chief price changes yesterday		
FRANKFURT (DEM)		
Alcoa	75.5	+ 14
Asstra	72.0	+ 25
Asko	12.3	+ 0.2
Asstra	1.0	+ 0.9
Asko	474	+ 7
Asstra	74	+ 1
NEW YORK (D)		
Alcoa	162.4	+ 10.4
Asstra	115	+ 5
Asko	92.4	+ 3
Asstra	26.1	+ 1.4
Asko	27.4	+ 0.7
Asstra	31.4	+ 1.4
LONDON (Pounds)		
Alcoa	72	+ 44
Asstra	82	+ 23
Asko	92	+ 34
Asstra	212	+ 31
Asko	200	+ 21
Asstra	652	+ 23
TOKYO (Yen)		
Alcoa	72	+ 44
Asstra	82	+ 23
Asko	92	+ 34
Asstra	212	+ 31
Asko	200	+ 21
Asstra	652	+ 23

Rubbermaid to cut jobs and close plants

By Tony Jackson in New York

Rubbermaid, the US houseware manufacturer once cited as the most admired corporation in the US, is to cut its workforce by 9 per cent and take a charge of \$150m before tax in the fourth quarter. The company said that of about 1,250 job losses, the "vast majority" would be in the US and Canada.

The company issued a profits warning for the second time this year, saying full-year earnings per share before the charge would be about \$1.00, compared

with \$1.42 last year. After the charge, earnings would be \$0.41. Sales for the year would be up about 5 per cent at \$2.35bn.

Rubbermaid shares rose \$1 to \$27.75 in early trading, valuing the company at \$4.4bn. The price had fallen sharply on the earlier profit warning in June. The company said it would close nine facilities around the world. One, in Guelph, Ontario, is a factory and the rest warehouses or distribution centres. It would close its offices in Europe other than its new European headquarters in Luxembourg.

It would also reduce and simplify its product lines, reducing variations of colour and packaging by about 40 per cent. Products being cut accounted for 5 per cent of group sales.

Rubbermaid said the reduction in this year's profit was due to increased raw materials prices, poor retail demand and higher marketing costs. The company is thought to have lost market share this year after raising prices aggressively in the face of a doubling in the price of plastic resin, its chief raw material. Rubbermaid said

yesterday the price of resin had peaked two months ago, and should continue to fall.

The company said it expected to double its sales and earnings per share every five or six years. This is a slight modification of the previous target, which was a doubling every five years. It would aim for an average return on shareholders' equity of over 20 per cent.

Mr Wolfgang Schmitt, chairman, said the company, which has almost no long-term debt, would increase its debt level. "We are now placing greater

emphasis on attaining a balanced capital structure." The company said it would continue to invest "very aggressively" in global growth, and aimed to use more debt to increase the return to shareholders. "We'll be very prudent about it," the group said. "We won't be going to a 50-50 (debt to capital) ratio, or anything like that."

WestLB in talks on Bank Austria link and 10% stake

By Andrew Fisher in Frankfurt

Westdeutsche Landesbank Girozentrale, the big German regional bank, is negotiating to buy a stake of up to 10 per cent in Bank Austria to underpin a planned co-operation agreement the two hope to sign this month.

Bank Austria, the largest Austrian bank, said it had not been decided whether the WestLB stake would take place through a capital increase or would come from the Austrian government's 30 per cent holding, which it has said it intends to sell.

Neither side would give details of the planned co-operation. WestLB is loosely linked with the Austrian bank through its recent co-operation agreement with Casa di Risparmio delle Provincie Lombarde (Cariplo), the big Italian savings and financial group. Cariplo also has a co-operation deal with Bank Austria, of which it owns 4 per cent.

Analysts said an important element of the co-operation could come in eastern Europe, where both are active for industrial clients. WestLB has been building its operations in Russia, where it recently opened a representative office in St Petersburg. It has subsidiaries in Moscow, Budapest and Warsaw and representative offices in Prague and Kiev.

The co-operation is also likely to include payments transactions between Germany and Austria. Investment banking, an area in which WestLB is becoming increasingly active in London, is another potential area in which the two could work together.

Although the ownership structure and business direction of the two banks is different, there are similarities. WestLB is Germany's largest public sector bank

Bayerische Vereinsbank, the German bank, hopes to complete takeover talks with Oppenheimer Group, the US brokerage, fund management and investment house, by the end of this year, writes Andrew Fisher in Frankfurt.

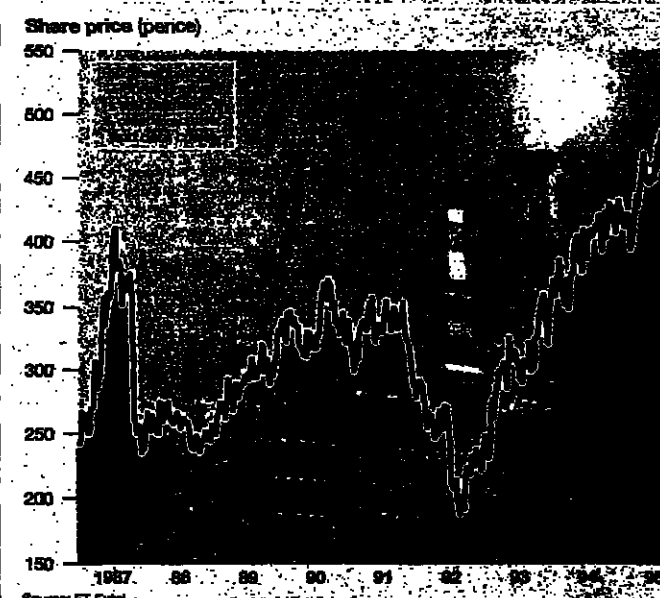
Mr Albrecht Schmidt, chairman, said the purchase of Oppenheimer would be "a huge leap" towards making asset management one of its core competences. Vereinsbank has assets under management of DM45bn (\$33.3bn) which Mr Schmidt said was not enough to establish a proper track record in this sector. Oppenheimer has about \$40bn under management.

and serves as the central financial institution for the state of North Rhine-Westphalia and local savings banks. Bank Austria has a more diversified ownership but with a heavy public sector slant. Apart from the government, the Vienna-based savings organisation, Antelverbank Zentralparkasse (AVZ), owns 45 per cent.

Both banks also have large industrial portfolios, although Mr Gerhard Randa, Bank Austria's chief executive, has said he wants to sell most of its corporate holdings. WestLB owns minority stakes in several leading German companies such as Preussag (engineering and mining) and TUI (tourism). It also owns 90 per cent of Thomas Cook, the UK travel agency.

The talks come as German banks are taking an increasingly international approach to their business. Analysts said part of WestLB's motivation could be to prepare for European Monetary Union, due to start in 1999.

Oiling the wheels of government



BP stake sale raises \$790m

By Antonio Sharpe and Robert Corzine in London

The UK government yesterday raised more than \$790m (£790m) from the sale of its remaining 1.8 per cent stake in British Petroleum (BP) in one of the UK stock market's biggest examples of a "bought deal".

A bought deal, also known as a "block trade", involves a bank bidding to buy shares, using its own capital, and then aiming to make a "turn", or profit, by quickly selling them to institutional investors at a higher price.

SBC Warburg, the bank involved in the BP sale, is estimated to have made £5m through yesterday's transactions. The government's stake was retained after BP's privatisation in 1987 to provide bonus shares for small investors who held on to their BP shares. However, the stock market crash that October deterred most small investors from participating in the offering.

Rothschild is expected to hold similar auctions over the next year to dispose of the government's other residual holdings in privatised companies, the biggest in terms of value being a 2.9 per cent stake in BAA, the UK airports operator, and a 2.3 per cent stake in the electricity generator National Power.

The BP sale forms part of £30m of privatisation proceeds which the government expects to receive this financial year, so will not alter its forecast for this year's public sector borrowing requirement of £29bn.

NM Rothschild, which is advising the government on the disposal of £1.2bn worth of shareholdings in 30 privatised companies, held a competitive tender late on Monday to extract the best price for the government's 101m BP shares.

Three or four banks took part and SBC Warburg, the investment banking arm of Swiss Bank Corporation, emerged with the

most aggressive bid of 508p a share. This compared with BP's Monday closing price of 512p. Yesterday morning, SBC Warburg offered the shares at 512p each to institutional investors and completed the sale in late afternoon. News of the deal caused BP shares to drop to 512p before closing at 517p, down 14p.

Bankers said SBC Warburg's aggressive bidding was intended to raise its profile after a troubled year, which has seen a change of ownership and a wave of defections. A bought deal is more risky than a conventional offering for the bank involved because it can suffer losses if it is unable to sell the shares.

The sale of the BP stake, the government's largest single residual shareholding in privatised companies, is the UK's biggest bought deal since 1990, when Imperial Chemical Industries raised £275.8m by selling its 24.9 per cent stake in Enterprise Oil.

Spain and Chile banks link in S America

By Imogen Mark in Santiago

Antofagasta Holdings, the London-quoted company majority-owned by the Lukic family of Chile, and Banco Central Hispanoamericano (BCH) of Spain have signed a deal aimed at creating a banking network with assets of \$10bn.

The basis of the new group will be O'Higgins Central Hispano (OCHC), an existing Chilean holding company to which the Lukics have a 64.5 per cent stake and BCH 34.5 per cent.

Both partners will pool some of their financial assets in the region so that each will have a half share in the expanded OCHC. The biggest single asset is Banco O'Higgins, Chile's third largest bank in terms of loan portfolio, with \$3bn in loans at the end of October this year.

It is one of the most profitable, with net income of \$36m for the same period. The bank has been jointly owned by the Lukic-BCH partnership since 1993, although BCH reduced its stake in January this year from 38 per cent to 26 per cent, according to local press reports.

The partnership controls 77 per cent of the shares, and the bank also trades in Santiago and on Wall Street.

The second Chilean banking asset to be brought into the holding company is a 25 per cent share in Banco de Santiago, which is the number two bank in the country by loans, with \$3.7bn.

This is held by the Lukic group, whose aim is to merge Banco de Santiago with O'Higgins to make it Chile's biggest bank.

In Argentina, the Lukics will contribute their newest acquisition, the Argentine operations of Credit Lyonnais, the French bank, bought this month for \$75m.

BCH owns Banco de Asuncion, the main bank in Paraguay, and Centro Hispano Banco, one of the biggest banks in Uruguay. The Lukic group own Banco del Libertador in Peru. All three of these banks will be part of OCHC.

BCH owns the Banco Popular in Argentina, which it may eventually add to the OCHC holding.

The network will be competing with leading US banks, principally Citibank, and with Spanish banks such as Banco Santander and Banco Bilbao Vizcaya.

Barry Riley
Why Wall Street grabbed the prizes in 1995



Memories are made of this. The bubble by the US Treasury 30-year bond at the 6 per cent yield level this week provides another parallel with 1993 when the yield briefly dropped below 6 per cent during September and October.

In 1993, the bull market in bonds has been even more remarkable than in 1995, when the long Treasury bond yield fell from 7.4 per cent to 6.2 per cent. This year the fall has been from 7.9 per cent to 6.0 per cent within 11 months.

Such sharp fluctuations in apparently blameless economic conditions may imply an increasing presence of destabilising market mechanisms, especially through the aggressive use of derivatives. They also reflect episodes of large intervention by central banks, which are attempting to offset problems in commercial banks and the foreign exchange markets and are inadvertently transferring instability to the government bond markets. In other words, the international bond markets are drifting out of the control of natural long-term investors.

But a more curious point to arise from the latest bond bull market is that its impact upon other securities markets appears to have been radically different compared with 1993. Two years ago, Wall Street's stock market was desperately dull, with the index up just 7 per cent, but this year it has been ablaze, with a gain of 34 per cent since January. During 1993, the real action was transferred to markets

around the world, with the World ex US index climbing 30 per cent, but in the past 11 months this index has put on just 5 per cent.

The global stock market implications of bond market bullishness appear to have neatly flipped.

The effect can be seen most clearly in the always volatile emerging markets, where the IFC Investable Composite Index roared up 75 per cent in 1993 but has fallen 14 per cent this year.

Meanwhile, Tokyo, the world's second-biggest stock market, is down 4 per cent in dollar terms. Why has it worked out so differently? The underlying driving

force in 1993 was the US Federal Reserve, pumping out liquidity at 3 per cent. But US investors were fearful that dollar interest rates had to rise in due course and they began to look overseas. Once the big money began to move into small markets the momentum began to feed on itself.

This year, however, the monetary flows have been largely from Asia, especially Japan, which has cut the cost of money all the way to 0.5 per cent. In effect, the Bank of Japan has taken over the Fed's pump-priming role. US investors have meanwhile been attracted by buoyant profits in the domestic corporate sector. They are also buoyed by the expectation

that short-term interest rates are going down, rather than up, from here. As for non-US stock markets, their pitch was queered last winter when the Mexican market, extremely important for US investors, dived 73 per cent in dollar terms between September 1994 and March 1995. Since then the index has recovered only a fifth of that decline. This is more risk than the average investor could cope with.

US money has therefore stayed at home. Whereas half the inflows into equity mutual funds were going into international funds at the peak in early 1994, only 3 per cent is going overseas now.

It is true that US pension funds have continued to diversify internationally, especially into Japanese equities this year. But in general, US money has become bottled up in 1995 whereas it was determined to travel the globe in 1993.

Now, though, Wall Street equities have veered right off the valuation charts of many global long-term investors. It is tempting to conclude that 1996 could turn out rather like 1994 for equity markets, but again in reverse - the emerging markets struggling off higher bond yields but Wall Street tumbling.

Historical patterns do not repeat themselves quite so neatly. But the central banks appear to have pumped up another problem for themselves. Their challenge for 1996 may be how to change direction without doing serious damage. When you are in a hole, certainly stop digging. But when you are in a bubble, dare you stop blowing?

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INTERNATIONAL COMPANIES AND FINANCE

EUROPEAN NEWS DIGEST

Price set for
BESI offering

The initial public offering of the Netherlands' BE Semiconductor Industries (BESI), one of the world's leading suppliers of semiconductor assembly equipment, was priced yesterday at \$13, or Ft 20.94, a share. Global co-ordinator Morgan Stanley said the size of the offering had been increased to 9.6m shares from the 5m originally on offer, because of strong demand from investors.

The underwriters are also likely to exercise an over-allotment option of 1.44m shares because of the over-subscription. The sale raised \$125m for Berliner Elektro, a quoted German investment fund which retains a holding of 55 per cent. BESI will be listed in Amsterdam, Frankfurt, on Nasdaq and on Seaq International. *Antonia Sharpe, London*

French airlines in deal

Air Liberté and Euralair, two of France's private airlines, yesterday announced an agreement aimed at strengthening their position ahead of the deregulation of European air travel. Air Liberté will receive Euralair's scheduled air routes. These include the routes between Orly airport in Paris, Madrid and Toulouse. In return Euralair will receive 10 per cent of Air Liberté and a seat on the board. Mr Lofti Belhassine, chairman of Air Liberté, said the agreement was part of the French aviation industry's consolidation. "There are too many small players at the moment. This is an important step towards a strong private player", he said. For Euralair, the agreement would allow it to focus on its business travel, charter and cargo activities. Air Liberté is also thought to be seeking to buy AOM, controlled by Crédit Lyonnais, the state-owned bank. *John Ridding, Paris*

Danfoss profits ahead 60%

Danfoss, the Danish unlisted manufacturer of industrial components, yesterday reported sales in the year ending September 30 up 19 per cent to Dkr11.1bn (\$1.99bn), while pre-tax profits rose 60 per cent to Dkr886m. The group said employment rose by 2,320 to 17,130, of whom 7,600 were employed abroad. The board announced that Mr Jorgen Clausen, 47, whose father founded the company in 1933, was to become chief executive from April 1 next year in succession to Mr Henry Petersen. *Hilary Barnes, Copenhagen*

Mövenpick sees advance

Mövenpick, the Swiss hotel, restaurant and food group, said it expected 1996 results to be above those posted in the current year. But it said 1996 net profit would be slightly below the year-earlier figure. Mövenpick said sales for the 10 months to October declined 3.4 per cent from a year earlier, with 3.2 percentage points due to negative currency effects. *AFX News, Adliswil, Switzerland*

Generali optimistic

Generali, the Italian insurance group, said it expected 1996 results to be better than 1994. The company reported a 1994 net profit of L673.4bn (\$545m). Generali said its parent premium income for the first nine months of the year was L1,672bn, up 8.3 per cent year-on-year. Life premiums increased 14.4 per cent to L3,345bn and damages premiums were 2.1 per cent higher at L4,326bn. *AFX News, Rome*

Ferruzzi Finanziaria said parent loss at the end of October rose to L225.6bn (\$140m) from L128.5bn at the end of June. Net debt stood at L1,981bn compared with L2,005bn at the end of June. *AFX News, Milan*

Générale de
Banque to
buy stake in
Fimagest

Générale de Banque, the Belgian bank, said it had agreed to buy the 73.37 per cent stake held by Suez of France in the asset management company Fimagest for FF660m (\$131.8m), agencies report.

Générale de Banque added that since its unit Banque Paribas de Crédit already held 3.74 per cent in the company, bringing the group's total stake to 77.11 per cent. Générale de Banque said the agreement would be submitted to the Belgian and French authorities for approval.

The estimated price was based on market assessment criteria for similar companies, the company's profitability and the size of the assets managed, it said.

As at the end of 1994, Fimagest's non-consolidated assets totalled FF55bn, its own funds were FF253m, its net non-consolidated profit FF74.5m and its return on equity 34.32 per cent. Générale de Banque added it said the other main shareholders in Fimagest are Crédit Mutuel du Nord with 8.43 per cent, and staff and management with 17.37 per cent.

Générale de Banque added the acquisition would give it better access to France and allow it to diversify distribution channels. It said that as of end-1994, Fimagest managed FF41.6bn of assets in 137 investment funds, including those offered by Banque Paribas de Crédit.

Suez said asset sales since August 1995 had reached FF3.9bn. The company also said it had sold its Tellit Direct Assurances unit to UK insurance group Sun Alliance, and confirmed it was cutting headquarters staff to about 80 from its current level of 185 and transferring its real estate assets into its Credisuez unit.

Suez said the holding company would concentrate its structures around its essential operations to aid its recovery. The holding company would limit its activities to strategic planning, financial support of its units, surveillance of the company's management and nomination of unit directors.

Veba close to launching multimedia network

By Michael Lindemann
in Essen

Veba, the German energy-based conglomerate, said yesterday it expected to receive a licence within the next three weeks to connect 10,000 households to a multimedia network in the Ruhr region.

The move will underscore Veba's efforts to become the biggest telecoms operator in Germany, alongside state-owned Deutsche Telekom.

The Ruhr project, dubbed Info-City, is designed to test the demand for a variety of multimedia services such as tele-shopping, said Mr Ulrich Hartmann, chief executive.

Veba also hopes to begin

operating a broadband telecoms cable between Bonn and Cologne. This is a pilot project designed to test the feasibility of linking the 36 regional studios of the ARD public sector television channel, a project for which Veba recently won the first licence.

Viag, another energy-based conglomerate, said earlier this week that it had planned to operate a similar network.

Speaking about prospects for 1996, Mr Hartmann warned that Veba would not be able to maintain the strong growth rates seen this year because of a generally weaker economy. He was "confident", however, that the group's operating profits in 1996 would exceed the

DM3.5bn (\$2.43bn) which the group is expected to report this year.

Several other German companies have indicated a slowdown in the specialty chemicals industry, but Veba said its HDIs chemical subsidiary expected another good year.

The company said the slowdown in orders which the industry is experiencing was due to a sharp increase in the size of stockpiles this year.

The effects of this are likely to be felt until the middle of 1996 and business would then "stabilise at high levels".

Investments in the five years to 2000 will rise about 10 per cent to DM28.5bn, with around 41 per cent going to the group's

PreussenElektra electricity division, the group's largest unit.

Veba's net return on equity is expected to rise to around 12 per cent this year, up from about 9 per cent last year and in line with a target of 15 per cent.

The company said its equity ratio (equity as a percentage of total balance sheet) would rise to about 31 per cent, up from 29 per cent last year, helped by the successful listing of its MEMC chemicals subsidiary in the US and by the receipt of DML1bn, part of the money paid by Cable and Wireless, the UK based telecoms operator, for a stake in Vebacom, the group's telecoms subsidiary.



Ulrich Hartmann: warned of effects of weaker economy

Clouds gather over Hungary's sell-off plans

Buyers may not be found for all the electricity companies, writes Virginia Marsh

The Hungarian government is scheduled to decide today on the tender for its 14 electricity companies. These are being sold off to western utilities as part of Hungary's sweeping privatisation plans for the energy sector.

However, not all the electricity companies may find buyers. The sales - the first of their kind in the former Eastern bloc - have been clouded by a tight timetable, regulatory and pricing uncertainties and what bidders describe as an unprofessionally managed tender process.

APV Rt, the state privatisation agency, received a total of 25 bids for the 14 companies - fewer than had been hoped and below the average of four bids received two weeks ago for each of five regional gas distribution companies (GDCs), which are also being privatised.

A consortium of Bayernwerk of Germany, Electricité de France and Aare-Tessin, a Swiss utility, is understood to be the sole bidder for a 24 per cent stake in MVM, the core electricity company which will retain the national grid and Paks, the country's Soviet-designed nuclear plant. APV Rt received a further 14 bids for seven non-nuclear power generation companies, while there were 10 offers for the six power distribution companies.

MVM Group 1994 (bn forints)				
	Electricity	Heat	Other	Total
Sales	133.3	16.6	14.4	164.3
Costs	128.4	20.1	15.2	163.7
Operating profit	4.9	-3.5	0.8	0.6
Other incomes				11.8
Other expenses				23.2
Profit before tax				-10.8
Post-tax profit				-11.7
Paid dividend				-
Retained profit				-11.7

Source: MVM Group

Minority stakes are being offered in the 13 companies which were hived off from MVM ahead of privatisation. However, simultaneous capital increases at power stations most in need of investment will enable buyers to take majority stakes in those companies.

A total of 26 western utilities purchased tender documents. As well as the consortium bidding for the core company, these included Germany's RWE Energie and PreussenElektra; PowerGen and National Power, both of the UK; Powerfin, a Belgian utility; ABB Energy ventures, part of the Swiss-Swedish engineering group; and several US companies including Atlanta-based Southern Electric.

The Hungarian authorities had hoped to attract bids of at least book value for most of the companies, which had combined total assets of Ft682bn

(\$6.14bn) at the end of last year. APV Rt, advised by N. M. Rothschild, received higher than expected bids for majority stakes in the five GDCs, the largest of which was sold last week to a consortium led by Italgas for \$172m, three times book value.

Top offers for the other GDCs ranged from two to four times book value with bidding dominated by state-owned continental utilities, some of which are also participating in the electricity sales.

No offers were received from US companies, although several pre-qualified, while British Gas, the only UK participant, put in bids well below the winners.

"Assets of this type just don't come up for sale very often and these are relatively small investments for continental utilities, some of which

are bulging with cash," says one London-based energy consultant. "They believe Hungary has made a commitment to liberalising the sector and are prepared to take a long-term strategic view. US and UK companies tend to be more constrained as they are private. They also appear to be more sensitive to political and other risks."

Some UK utilities are displaying the same caution on electricity, with Midlands Electricity and Eastern Group among those which have decided not to bid due to an incomplete regulatory framework, including uncertainties over politically-sensitive price rises needed to make distribution companies profitable.

In this, however, UK companies are not alone. Several potential investors are believed to have scaled back both the number and size of their offers for the same reason.

"There is a lot still to be defined and if we win we will have to lobby hard and help shape future policies," says an executive at a utility which bid for a power generation company. "There are many risks and this will no doubt be reflected in the size of bids. But, in the end, we decided the risks were manageable."

Bidders say the tender process was poorly managed. APV Rt and its adviser, Schroders, the UK merchant bank,

made many last-minute changes to tender conditions. One western utility said it was still receiving amendments just one day before last Thursday's deadline.

Although generally welcoming the frequent changes made, even harder to comply with the tight timetable - offers were due 45 days after publication of the tender documents.

Despite the many problems and calls to postpone the sales, the Socialist-led government - which aims to complete privatisation by the end of 1997 - doggedly pressed on, partly due to pressure to provide Ft150bn (US\$1.2bn) in privatisation revenues for this year's state budget.

The authorities are also close to an agreement over the sale of a majority stake in Matav, the national telecommunications company, to Magyarom, the consortium of Deutsche Telekom and Ameritech, which bought 30.3 per cent of Matav for \$75m in 1993.

With the budget target already in sight, it remains to be seen how many electricity companies will be sold. The sales have attracted strong opposition from powerful lobbies in the industry and in the government as well as from the general public. The opponents' case will be strengthened if, as expected, bids for some companies are below book value.

Schering optimistic despite blows

Analysts are concerned over series of setbacks for German drugs group

Schering was supposed to be a fast-growing drugs stock. The German group had shown itself of its chemicals and agrochemicals operations, and its pharmaceuticals business was predicted to surge on the back of its new revolutionary multiple sclerosis treatment. But it has not worked out that way.

The group has suffered a series of blows. The unexpected strength of the D-Mark, the withdrawal of its most promising contrast media drug used for X-rays, and concerns about the safety of its contraceptive have caused its shares to underperform the Dax index by 8 per cent so far this year.

The latest blow came this week when a Food and Drug Administration advisory committee recommended a multiple sclerosis drug from Biogen, the US biotechnology group, which will be the first US competition against the German group's Betaseron. Biogen's shares rose 12 per cent on the news, as analysts expect the company to receive full approval within the next few months and a launch by the middle of next year.

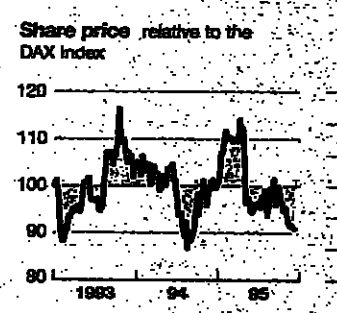
"We've certainly been accident-prone," admits Mr Giuseppe Vita, chairman of Schering's problems have been reflected in its results. During the first nine months net profit fell 18 per cent and sales 2 per cent. Growth prospects for the coming quarter are slight. Schering officials concede it has not been a good year. "But this will not deflect us from our strategy: cutting costs, focusing on our core pharmaceuticals business and developing new products," Mr Vita insists.

Such cost-cutting will be necessary as the group struggles with the strong D-Mark about 17 per cent of turnover is earned in the US. Mr Klaus Pöhl, deputy chairman of Schering and responsible for finance, estimates Schering has lost more than DM300m in sales from the weak dollar.

On the revenue side, Schering is also struggling. The unexpected withdrawal from the market of Isovist 280, a contrast medium, was a serious setback. The product had been introduced in Japan in December 1994 and Germany last January. It was supposed to offer a considerable improvement in image quality and patient tolerance. But in

COMPANY PROFILE:
Schering

Market capitalisation	\$4.7bn
Main listing	Frankfurt
Historic P/E	17.8
Gross yield	1.57%
Earnings per share, 1994	DM 4.57
Current share price	DM 86.35



October, physicians reported delayed side effects, notably skin allergies.

Although Schering remains upbeat, saying the withdrawal has only been temporary, analysts hold a different view. They believe the drug will not return to the market. Isovist 280 had sales of DM35m last year. They had been expected to double this year following a Japanese launch.

To make up for the shortfall in sales, Schering is putting



has not been confined to its diagnostics division. The controversy between the company and the UK and German health authorities about the alleged side effects of third generation contraceptive pills has rocked Schering's confidence in its fertility control and hormone therapy division.

The company has already challenged the German decision last month to impose greater restrictions on the availability of some of its products.

The chairman remains stubbornly upbeat, determined that the company will not be deflected from its strategy

much emphasis on Levovist, an ultrasound contrast agent. It is currently on sale in Sweden and approval for Germany and other European Union countries is expected early next year. Mr Vita is confident Levovist will have worldwide sales of DM500m by 2000.

But sales do not equal profits, says Mr James McKean, analyst at Morgan Stanley. "Even if the product is launched next year, profit margins for the first year or two will be minimal," he says, adding that Levovist will not help make up for the shortfall of Isovist 280's sales which had already cost the company DM155m.

Schering's run of misfortune

ucts, most notably Femovan. Schering has already reported loss of sales for its third generation of oral contraceptives.

"The point about the contraceptive issue is that it has not yet even begun to dent Schering's sales in this division because it only happened in mid-October," Mr Jo Walton, analyst at Lehman Brothers, explains.

Mr McKean argues that even if Schering did make up for the shortfall in sales of third generation products by selling its second generation, "the profit margins will be much lower, because the third generation products are much more expensive".

Which - aside from all the

accidents - leaves Schering with one product in which it has invested high expectations. This is Betaseron, the multiple sclerosis drug which is currently available only in the US and for which approval for the European market is pending.

Mr Vita says he expects Betaseron to reach worldwide sales of DM650m over the next 12 months.

"But this is where we worry about Schering's strategy," Morgan Stanley's Mr McKean says. "We can accept that the company has been accident-prone. But when it comes to Betaseron, Schering has consistently raised expectations and has failed to meet them. We are talking about a marketing problem."

For example, earlier this year Schering expected sales for Betaseron to amount to DM500m. This has been revised downwards several times. The latest estimate is about DM380m. "I am not confident it can reach the DM650m level over the next year," Mr McKean says. Other analysts agree.

One analyst points out that it is not yet certain which health authorities in Europe will publicly finance Betaseron. In the US, treatment for a year costs about \$10,000. "The costs could be between 10 per cent and 15 per cent higher in some European countries," Mr Vita says. "The FDA advisory committee's recommendation this week will weaken Betaseron's sales growth still further. Ms Walton at Lehman Brothers estimates Betaseron's US sales will be flat next year when Biogen's product is launched. Moreover, another competitor, Teva, of Israel, could reach the market in 1996."

Nevertheless, Mr Vita remains stubbornly optimistic, determined the company will not be deflected from its strategy. As for any thought that outsiders might poach Schering, he dismisses any speculation, calling it nonsense.

But Mr Walton remains more reserved. "There is a huge amount of consolidation among the medium-sized drug companies to secure their future. And unless Schering demonstrates stronger earnings growth, they may have to consider joining this trend."

Judy Dempsey

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INTERNATIONAL COMPANIES AND FINANCE

ASIA-PACIFIC NEWS DIGEST

Deputy chief steps down at Fairfax

Mr Michael Hoy, deputy chief executive of John Fairfax, the Australian newspaper publisher, is resigning from the group in February. Mr Hoy's surprise announcement yesterday comes just weeks after Mr Bob Mansfield, the former boss of Optus, the Australian telecommunications group, took over as chief executive at Fairfax.

"I think when you've got two very similar and both active and hands-on people in their approach to management then you've got the makings for substantial conflict, and very clearly somebody has to let go," Mr Hoy was quoted as saying. Mr Mansfield said Mr Hoy's decision had been "carefully considered... and one which I fully understand and respect". He added that by remaining until the end of February, Mr Hoy would complete his involvement in the development of Fairfax's new printing facilities at Chullora in Sydney.

Mr Hoy, an Australian, joined Fairfax three years ago from the South China Morning Post where he was general manager, and was previously managing editor of The Times in London. News of his departure capped another day of active trading in Fairfax shares, which closed four cents higher at A\$2.89. There has been much speculation this week that two Australian media magnates, Mr Kerry Packer and Mr Rupert Murdoch, are hatching a deal which would result in a restructuring of Australia's media assets - and square with the country's rules on cross-media ownership and foreign ownership. Fairfax, appointing an internal candidate as chief executive but an external candidate as chairman.

BHP to reshape steel division

Broken Hill Proprietary, the Australian resources group, is to reorganise its large steel division, aimed at "accelerating plans to develop as a major multi-divisional steel company".

It said it would form a new flat products division, made up of the slab, plate, sheet and coil products divisions, and BHP New Zealand Steel.

The rod and bar products and existing long products division would be merged to form a long products division; and there would be two other divisions: building and industrial products and international.

Operations in its minerals business would also be combined to create three groups: copper, steelmaking raw materials, and world minerals.

Taiwan computer group expands

First International Computer, Taiwan's second largest computer firm, said it had completed a T\$800m (US\$29.3m) expansion at two plants. As a result, the company expected to turn out more than 40,000 notebook computers and between 50,000 to 60,000 desktop personal computers a month.

The expansion would also raise its total monthly motherboard production to 500,000 units and 25,000 monomers, it said.

A monomer, an all-in-one desktop PC, can function both as a commercial and a home PC to link with networks such as the Internet.

Monomers can also provide multimedia facilities, voice mail, fax, television and TV games. The company did not give production figures before the expansion.

Carrefour opens China outlet

Carrefour, the French hypermarket group, opened its first outlet in China yesterday. The opening marks the start of a nationwide drive to lure consumers away from China's socialist-era retail sector. The 4,000 sq m store near one of Beijing's diplomatic quarters opened its doors with a ceremony attended by Mr Yves Colland, France's visiting foreign trade minister, and Chinese dignitaries.

Carrefour said it planned to open many stores in China, starting in Shanghai. It added that it would then expand to Dalian, Tianjin and other cities.

The aim was to open 30 stores in the next 10 years. The supermarket, a joint venture between Carrefour and China Venturetech Investment Corp, has a staff of 350 and offers 6,000 products, 2,000 of which are foods.

BAT set for clash with institutions over ITC

By Kamal Bose in Calcutta and Roderick Orm in London

BAT Industries, the UK tobacco and financial services group, is heading for a potential clash this weekend with Indian institutional shareholders in ITC, India's largest tobacco group in which BAT has a stake of almost 32 per cent.

ITC's nomination committee, made up of representatives from ITC's main shareholders, will meet to propose a chairman and chief executive to succeed Mr Krishan Lal Chugh, who is retiring this month after losing the confidence of BAT.

BAT will seek to persuade Indian institutional shareholders to split the roles by appointing an internal candidate as chief executive but an external candidate as chairman.

However, Indian institutional shareholders, which have about 38 per cent of ITC, are thought to be reluctant to split the roles.

They also appear keen to nominate Mr Yogesh Chander Deveshwar, ITC's vice-chairman, as the company's next chairman.

Mr Deveshwar returned to ITC several years ago after a stint as chairman of Air India. He came back as the heir-apparent to Mr Chugh and is thought not to command the support of BAT.

Other contenders for the top job are the two deputy chairmen, Mr Saurabh Mishra and Mr Feroze Kustom Vavalua, and Mr Biswadev Mitter, a director.

It is believed inside ITC that BAT will have no problem in working with any of the other three, although its first preference appears to be Mr Mishra. Mr Deveshwar fell foul of BAT when it met with resistance from Mr Chugh and others over its proposal to raise its holding in ITC to 51 per cent.

According to an executive close to ITC, much will depend on what message the financial institutions receive from the finance ministry, which does not want to lose the support of BAT for its Indian associate.

"We will find it difficult to grow in the financial services business without the support of BAT. We can have a bigger share of the Indian cigarette market, provided we have a good working relationship with BAT," one source said.

Reliance drops Bombay delisting threat

By Mark Nicholson in Bombay

Reliance Industries, India's biggest quoted private company, yesterday dropped its threat to delist from the Bombay Stock Exchange, the country's biggest.

The move defused a dispute which arose after the BSE suspended Reliance shares for three days last month, in a row over the issue of duplicate shares.

Reliance informed the exchange that it had "decided to accede to your request" not to delist in the interests of investors. The decision, made at a board meeting in Bombay, followed an official call from the BSE on Monday to reconsider its threat.

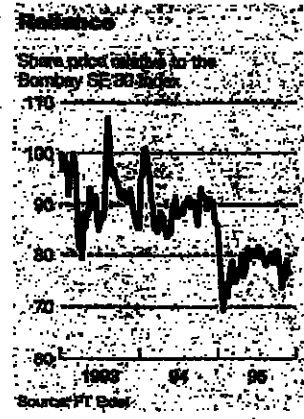
The textiles and petrochemical group has a turnover of

\$2bn, accounts for up to 30 per cent of trading volumes on the BSE and has a 14 per cent weighting in the BSE's main share index.

Peace between the two sides was mediated by a group of senior Bombay brokers. BSE members had urged the exchange to seek a compromise, fearing a heavy loss of commission had the bourse's most heavily traded and liquid stock moved - as Reliance threatened it would - to Bombay's smaller and rival National Stock Exchange.

Brokers in Bombay said Reliance might also have suffered had it left the BSE, which averages 70 per cent of the turnover in Indian equities and is far the country's biggest market. India has more than 20 stock exchanges.

Reliance said it had reached



its decision after being "overwhelmed" by a "spontaneous outpouring" of support from investors and following the "wise and patient counsel" of senior and respected members of the stockbroking fraternity.

Mr Kamal Kabra, president of the BSE, said he had expected Reliance to retract its threat, since he said there were no legal means available to the company unilaterally to delist.

"They have realised we are married for good, whether they like it or not," he added. "Under the present law, no company can delist as long as it is in a healthy state."

Reliance, however, said it had agreed to stay with the BSE even though "it was advised there were sufficient grounds in law to delist".

The row followed the BSE's decision in mid-November to suspend trading in Reliance for an unprecedented three days, punishment for alleged malpractices in the issue of 40,000 duplicate shares to a shareholder, who claimed to have lost an original batch of stock.

Reliance had bitterly contested the punishment, denying any wrongdoing and alleged that the BSE had been prejudiced and premeditated, in acting against the company, seeking to cause "embarrassment" and "harm" to its reputation.

Reliance said the "substantive issue" it had raised "vis-a-vis reform of the Indian capital market" had been "widely accepted" during the recent dispute.

These, it said, were "in keeping with the spirit of globalisation" and that "the concept of independent corporate governance" introduced in stock exchanges across the country, fairness and transparency be codified into the regulatory process, and effective redressal mechanisms be provided.

Deal of decade threatened at Bank Hapoalim

Adoption of planned legislation may harm Israeli bank's sell-off, writes Mark Dennis

Bank Hapoalim's new move to grant head-quarters in the heart of Tel Aviv's financial district is symbolic of the rapid transformation of Israel's largest and most profitable bank.

Elegantly designed with smooth lines and a central atrium, and housing state-of-the-art technology, it is an apt home for a bank which is undertaking a restructuring to produce customised high-tech services for its diverse clientele of corporations, smaller businesses and households.

However, while the managers of the 75-year-old bank seek to improve customer service, controversy over its substantial non-financial holdings is casting doubt on the bank's future and its forthcoming privatisation.

This week, a government committee recommended that Israeli banks substantially reduce their non-financial holdings, both in shares of companies and as a percentage of the bank's total equity. At issue is the virtual dismantling of Bank Hapoalim, which has by far the most extensive non-financial holdings among Israel's banks.

As control of the banks moves to the hands of private parties, the bank's incentives will change... there can be no assurance that their power will not be abused once the banks are controlled by private parties," a Treasury-backed report said.

Bank Hapoalim is a commercial bank, merchant bank and

investment bank rolled into one and combined with a holding company.

Israel's universal banking system allows Hapoalim to be a financial supermarket involved in everything from selling stocks, making loans and appointing directors to some of Israel's most powerful companies.

The bank has Shk\$6.7bn (\$1.4bn) in deposits, one-third of Israel's total; Shk\$74bn in outstanding loans, 34 per cent of the total; manages 36 per cent of the assets of Israel's provident funds and 29 per cent of mutual fund assets; and finances one-third of the country's foreign trade.

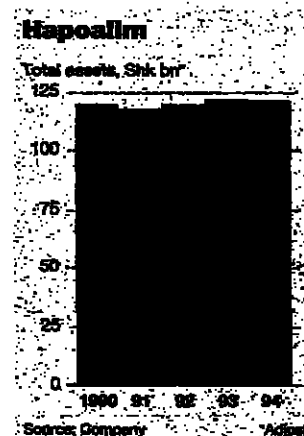
Twenty-five per cent of Bank Hapoalim's \$2.18bn equity is made up of its non-financial holdings, which include controlling stakes in Israel's two largest industrial conglomerates, Koor Industries and Clal Israel.

Such a concentration of wealth makes the bank a virtual proxy for Israel's thriving economy and one of its most prized blue-chips up for privatisation next year.

The sale of a 20 per cent to 40 per cent controlling stake worth between \$400m and \$500m is "the deal of the decade" in Israel, one analyst said.

Two multinational groups comprising prominent investors are preparing bids. One company, the Renaissance, includes the Bronfman family of Canada through Clal Israel, Goldman Sachs, the international investment house and Mr George Soros, the international financier. The second includes Israeli businessman Mr Eliezer Fishman and Bear Stearns, the global investment bank.

But the bank's concentration of economic power makes it a target for antitrust regulators.



They believe the bank's size is a hindrance to competition, and its non-financial holdings a potential source of instability and conflict of interest.

In 1994, parliament required banks to divest all holdings in non-financial companies above 25 per cent and keep the bank's total equity in these holdings to 25 per cent by the end of 1998.

The latest recommendation calls for a greater divestiture, suggesting no more than a 20 per cent stake in any one company and a total equity invested of 15 per cent. In addition, Bank Hapoalim would have to divest fully from either Koor or Clal.

Adoption of such legislation could harm the forthcoming sale of the controlling stake. "The recommendation would definitely affect the value of the bank and may affect our participation," said Mr Jonathan Kolber, chief executive of Clal Israel. "If its wings get too clipped, we will gladly walk away."

However, according to analysts, the two groups are themselves considering the divestment of some of the bank's holdings and are more concerned with being bound to a fixed timetable rather than the policy.

Mr Amnon Sivan, the bank's chairman, argues Hapoalim needs to retain non-financial holdings as a hedge against the volatility of the financial sector. Non-financial holdings contributed 40 per cent of profits of \$196m for the nine months of 1995 to September 30. Mr Sivan also says legislation and banking regulations prohibit any potential conflicts on interest and that the global trend is towards bigger banks.

Hapoalim's management team has been widely praised for turning it around after the 1983 crisis that led to mass selling of bank shares, and government intervention.

Led by Mr Sivan, the bank made its financial holdings more efficient and diversified its holdings to mitigate the effect of any future financial crisis.

Net profits rose from Shk\$18m in 1991 to Shk\$31m in 1994, with subsidiaries and affiliated companies accounting for Shk\$263.5m. In 1994, the bank made doubtful debt provisions of Shk\$661m, much of it to the agricultural sector. However, because of increasing profitability it expects to be able to write off some of that figure.

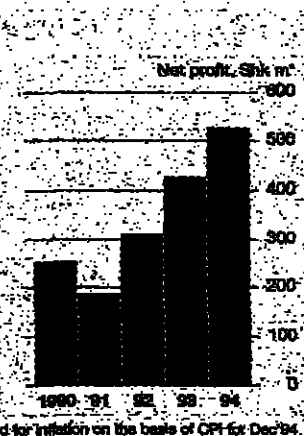
Mr Sivan said that in spite of the uncertainty of non-financial holdings, Bank Hapoalim would continue to restructure its banking activities.

The bank would divide into four divisions: household (retail), medium-sized companies, large corporations and private banking for large account holders.

Each division would have its own logistics and professional support because "service is very, very different for these various groups", Mr Sivan said.

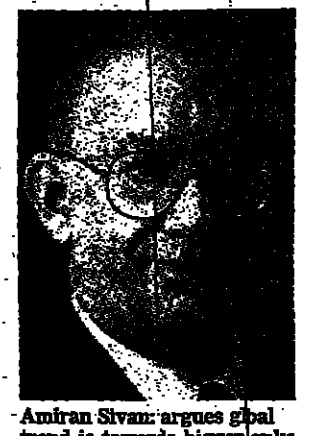
However, as the bank nears its restructuring towards 2000, uncertainty over banking reform and privatisation are clouding its future.

The government must side on the committee's recommendation in less than two weeks and the Renaissance group said it would announce next week whether or not it would change its position towards the privatisation.



Net profit, Shk\$ m

Adjusted for taxation on the basis of CPT for 1994



Amnon Sivan: argues global trend is towards bigger banks

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November 27-28, 1995

Salomon Brothers

Foster's reveals plans for drinks business

By Nikki Tait in Sydney

Foster's Brewing Group may look at the wine industry as part of any diversification of its drinks business in Australia, Mr Ted Kunkel, chief executive, said yesterday.

In a review of the company's prospects, Mr Kunkel also outlined plans for an overhaul of the group's Australian pub assets.

To capitalise on the relaxation of gaming machine laws in Victoria, where half its hotels are based, the group

would seek to turn the pubs into "leisure destinations", offering a combination of gaming, restaurant and cabaret facilities.

He said the group's investment in Asia was likely to be pegged at between about A\$200m (US\$148m) in China, where Foster's has three breweries, and perhaps A\$50m in India and/or Vietnam.

Mr Kunkel added that losses from the Chinese business were expected to be between about A\$10m and A\$12m in the current year, but revealed

plans to ship Shanghai Beer to the US.

There were no plans to sell the Molson interest in Canada, despite recent speculation, he said.

In the UK, Foster's might withdraw from Intergroup Pub Company, formerly Intergroup Estates, its pub joint venture with Grand Metropolitan, the food and leisure group. GrandMet has also signalled a desire to sell, possibly via a flotation.

"At some stage in the coming year or two, as progress on

the new business plan becomes clearer, our continued involvement in IEL will be decided upon."

The decision would be made "in the light of other possible investments and an assessment of relative return". Foster's was essentially ungaraged, he said, if retaining debt were weighed against non-core assets for sale. Foster's had shareholders' funds of A\$3bn.

However, its target long-term gearing ratio was about 50 per cent.

RPM SPECIALIST CORPORATION

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U.S. \$50,000,000
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Notice due January 2, 1996
NOTICE is hereby given to the shareholders that the THOMSON-CSF extraordinary general meeting of shareholders held on November 30, 1995 approved the transfer of operational divisions still run by the parent company THOMSON-CSF to 80% owned subsidiaries, effective date January 1, 1996.
On January 2, 1996, all payments of the principal of the Notes will be made by the delivery of ordinary shares of THOMSON-CSF at the rate of 34.46 shares for each U.S. \$1,000 principal amount.
Share Payment Agent and Fiscal Agent:
BANQUE PARIBAS
December 6, 1995

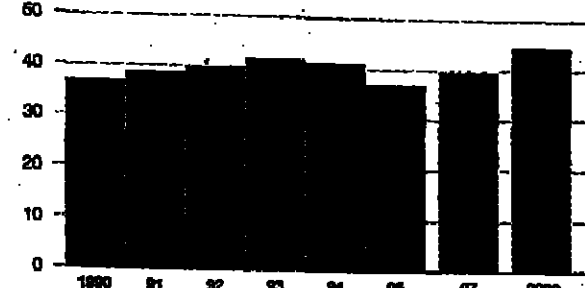
EUROPEAN COMMUNITY
USD 100,000,000
8.25% 1995/96
NOTICE is hereby given to the bondholders that Banque Nationale de Paris Succursale de Belgique shall cease to act as a Paying Agent in Belgium in the above issue and the Banque Bruxelles Lambert S.A., Avenue Marnix 24, B-1050 Brussels (Belgium) has been appointed as its successor Paying Agent with immediate effect.
The 6 December 1995

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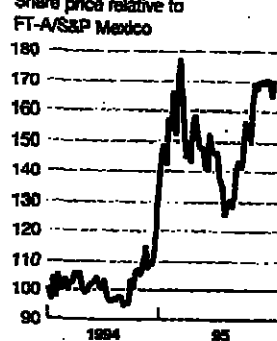
MEXICAN BREWING INDUSTRY

Mexico's beer market

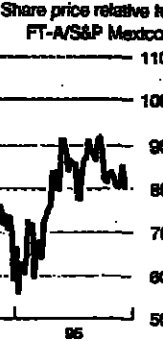
National consumption (H.L.M.)



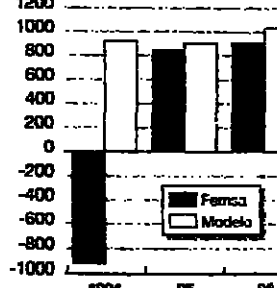
Modelo Share price relative to FT-A/S&P Mexico



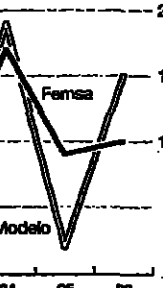
Femsa Share price relative to FT-A/S&P Mexico



Net profit and loss (pesos m)



Sales growth (%)



Source: FT Equity, Latinvest, Canadian

Improving competitiveness with a change of culture

Femsa has undergone complete reorganisation but has yet to reap the full benefits, says Daniel Dombey



During the past decade Femsa, Mexico's largest drinks company, has expanded aggressively in drinks-related businesses.

while diversifying itself of other interests such as tourism, motor parts, fast food, housing and fishing.

It bought the third-largest brewery, Mochizuma, thus dividing the sector between itself and Grupo Modelo, Mexico's biggest beer company. It has built its Coca-Cola wing, Coca-Cola Femsa, into as great a source of revenue as beer, as well as modernising its packaging operations into its most profitable division. It has also set up the country's biggest chain of 24-hour convenience stores, Oxxo, stocked with Femsa products.

The company is based around premium drinks with mass appeal, such as Coca-Cola and Sol and Tecate beers. In spite of recession and prices that have lagged inflation, domestic sales for the third quarter fell only 6 per cent to 3.2bn pesos (\$421m) compared with the same period a year ago.

Mr José Antonio Fernández, the company's chief executive officer, says Femsa plans to double its sales in 1996, though he adds: "We are doing a lot of things

differently," he says, citing changes in the company structure and distribution network, and its partnerships with international companies such as Coca-Cola and the Canadian brewer John Labatt.

The company has reorganised into four separate divisions - beer (which accounts for 40 per cent of revenues), cola (also 40 per cent), packaging and retailing.

Senior managers, however, admit that the benefits of such a rationalisation are still to come.

Though competing with Modelo's superior distribution network and advertising campaigns, Femsa has halted the decline in its share of the beer market - currently at about 45 per cent, down from 54 per cent 10 years ago.

Sales for the first nine months of the year were 4.7bn pesos, a 1 per cent fall from the same period in 1994, though profits fell more substantially to \$24m pesos.

Exports for the nine months, at 0.7bn hectolitres, accounted for 5.5 per cent of total volume, a rise of 21 per cent on the same period last year. By contrast, Modelo exported about 12 per cent of total volume.

On the distribution side, Femsa has concentrated resources on the most competitive geographical areas, spinning off distribution franchises to third parties in less crucial areas.

Labatt lends a hand with some marketing finesse

Mexico City's beer market has been dominated for years by Corona, a brand produced by Grupo Modelo, Mexico's biggest brewer. But a Femsa brand, Sol, has significantly eroded Corona's market share in recent months, writes Bernard Simon.

Sol's breakthrough in the capital is due largely to close co-operation between Femsa and John Labatt, the Canadian brewer which paid \$510m for a 22 per cent stake in Femsa Cerveza in late 1994.

The value of Labatt's stake has plummeted with the slide in the Mexican peso. But the Canadian brewer, which itself was taken over by Belgium's Inbevew earlier this year, at least has the satisfaction of watching Femsa halt a long slide in market share as the Mexican group has benefited from Labatt's marketing and technical skills.

"We've come to provide them with focus and direction," Mr David Kincaid, Labatt Breweries' marketing director, says. "It's a very open relationship. There are no secrets or hidden agendas."

It also hopes that Labatt's US distributorship, now fused with its own, will help boost exports.

Labatt holds a 22 per cent stake in Femsa Cerveza, bought in 1994 for \$510m - a move which helped Femsa reduce its debt burden. But Mr Fernández remains coy about whether the partnership will lead it to bring new products, such as ice beer, to the Mexican market.

It has also shifted from more expensive aluminium cans towards bottles, a move which Mr Fernández believes increases the synergies between its drinks and packaging divisions.

The company's chief problem is Modelo - a large and focused competitor, with ample resources to invest in distribution and greater production. But with the expected increase in Mexico's beer drinkers - estimates range between 7m and 8m additional beer drinkers in the next 10 years - both companies will be able to grow.

Labatt has only two full-time employees in Mexico. But it has helped Femsa to revamp its entire beer marketing strategy. Each of Femsa's half-dozen brands has taken on a more clearly defined image in specific parts of the country, supported by carefully-targeted sponsorships and media campaigns.

Sol, for instance, was given an image of urban prosperity and success by relaunching it in a clear bottle, previously used only for export markets.

Tecate, Femsa's best-selling brand, is strongest in the north and north-west. Its image has been retooled, in Mr Kincaid's words, as "a true Mexican leader", emphasising its eagle trademark. "The eagle put a little Mexican boldness in the brand," he adds.

Transplanting ideas from Canada to Mexico has its limits, however. The scope for regional specialisation is constrained by Mexico's less advanced infrastructure and its more diffuse beer distribution system. In addition, Mexico's two national TV networks do not offer the same regional advertising slots available in Canada.

Debt stands at 7.2bn pesos, and is almost exclusively in dollars in spite of chiefly peso revenues, which constrains investment in spite of favourable rates and maturities. No large tranche of debt falls due until 1997.

In contrast with the beer division, Coca-Cola Femsa, 30 per cent of which is held by Coca-Cola and 19 per cent of which is separately listed on the Mexico and New York exchanges, dominates the sector. But it saw operating profit

fall 48 per cent to 50m pesos for the third quarter, clouded by problems with a Buenos Aires franchise in which it has a 51 per cent stake.

The unexpected recession in Argentina and greater than expected problems in turning round previously inefficient operations contributed to the franchise's 12 per cent sales decline and 5.5m Argentinean peso (\$5.5m) loss for the third quarter. The Buenos Aires operation accounts for about a third of Coca-Cola Femsa's total sales of 1.1bn pesos.

"Here in Mexico, Coca-Cola is the cheapest way of getting calories into your body. But in Argentina, it is a luxurious beverage, more expensive than beer and wine in some parts of the country," Mr Fernández says.

Coca-Cola Femsa has not made clear whether it intends to exercise an option to acquire the remaining 49 per cent of the company, although Femsa officials say they are looking at buying neighbouring franchises to build up operations.

Though Femsa is undoubtedly well placed in growing sectors, greater focus remains its chief goal. The company's dark Noche Buena beer recently came on sale in the country's stores; it is commonly regarded as Mexico's best, and yet is only distributed in the run-up to Christmas. The reason? It has always been that way.

Modelo banks on the old formula

The word "conservative" could have been designed for Grupo Modelo, Mexico's largest brewer. But the company's policies of limiting itself to the manufacture of beer rather than looking for other businesses, and of taking on no debt have helped it increase market share from 38 per cent to 53 per cent in less than 20 years.

Its conservatism has allowed Modelo to pass relatively unscathed through the financial upheavals that followed the 1994 Mexican devaluation, which in recent months sent interest rates to 60 per cent and pushed the peso down.

"Modelo is a company that sells a simple product - beer," says Mr Scott Wilkins, an ana-

lyst at Baring Securities in Mexico City. "They haven't had to be extraordinarily innovative, but what they've done, they've done very well."

For the first nine months of 1995, the company announced sales of 6.8bn pesos (\$894m), a 4.6 per cent increase on the same period in 1994 in real peso terms. Profits of 703m pesos for the period marked a 15 per cent increase.

In spite of a 1993 association with Anheuser-Busch, the biggest brewer in the world, and exports to some 104 countries, Modelo remains a very traditional concern. The company only entered the Mexican stock exchange in 1994, floating 13 per cent of its stock.

"We move slowly here in Modelo, since that way there's

less risk of tripping up," said Mr Juan Sánchez Navarro, a vice chairman of the company and at 82 something of a symbol of its traditionalism. "It is a luxury we can enjoy because of our favourable position in the market." Beer in Mexico is a virtual monopoly, with Modelo and Femsa accounting for almost all domestic sales.

The company's products have changed little in recent years. Anheuser-Busch has yet to announce whether it will exercise an option to increase its 18 per cent holding in Modelo - for which it paid \$477m - to 35.12 per cent by 1998, while Modelo is cautious about when, or if, it will introduce new products as a result of the partnership.

However, the company has acted effectively in growth areas. In spite of the devaluation of the peso, it has not reduced the sale of its export beers in dollar terms but instead moved to invest more in foreign marketing and distribution.

As a result, it expects export sales this year to increase 38 per cent from the 1994 level of \$300m, with a further increase of 15 per cent to 18 per cent in 1996 and about 14 per cent in the years thereafter.

The company is also banking on the hope that the battered domestic market will begin to grow again. Modelo estimates that the recession will shrink domestic sales by 5 to 6 per cent this year from 1994's level of about 6.8bn pesos. It hopes that in future years, economic recovery and the growing young adult population will allow an annual sales growth of about 5 to 6 per cent.

Such thinking has been behind Modelo's construction in the central northern state of Zacatecas of what it claims will be the biggest brewery in Latin America, to serve the domestic market. The first phase of production, which is expected to begin in 1997, will cost \$400m.

It will have a capacity of 3m hectolitres, which is expected to double within a year. To date, the company has invested some \$200m.

Modelo's operations centre on Corona, by far its best selling beer - which some analysts see as a potential weakness. While Femsa has shifted its promotional efforts within Mexico from one brand to another - it is currently heavily promoting Sol - Modelo has remained content with what has been its leading make since the 1960s.

"We have a lot of brands," said Mr Sánchez Navarro. "But we don't give them too much importance. We would turn to them if Corona began to lose popularity for some reason."

At present Corona's position is greatly helped by Modelo's formidable distribution network, which is especially strong in Mexico City, the country's most profitable market.

While Femsa credits its remodelled distribution network - using third-party distributors - with halting its decline in market share this year, Modelo remains happy with the overwhelmingly self-owned distribution network that has served the company and its customers, well to date.

"We couldn't have started the business without Modelo," says Mr Francisco Vázquez, the manager of a small fish restaurant near the centre of Mexico City. As is the case with hundreds of other bars and restaurants, all the chairs, tables and refrigerators are lent by Modelo and bear the Corona insignia.

"If the competition offered the same service, things might be different," said Mr Vázquez, who stocks only Modelo brands. "But as it is Modelo almost does too much for us."

Daniel Dombey

This is the third in a series. Previous articles appeared on November 24 and November 29

TENDER NOTICE

UK GOVERNMENT ECU TREASURY BILLS

For tender on 12 December 1995

- The Bank of England announces the issue by Her Majesty's Treasury of ECU 1,000 million nominal of UK Government ECU Treasury Bills, for tender on a bid-yield basis on Tuesday, 12 December 1995. An additional ECU 50 million nominal of Bills will be allotted directly to the Bank of England for the account of the Exchange Equalisation Account.
- The ECU 1,000 million of Bills to be issued by tender will be dated 14 December 1995 and will be in the following maturities:
ECU 200 million for maturity on 11 January 1996
ECU 500 million for maturity on 14 March 1996
ECU 300 million for maturity on 13 June 1996
- All tenders must be made on the printed application forms available on request from the Bank of England. Completed application forms must be lodged, by hand, at the Bank of England, Customer Settlement Services (formerly Securities Office), Threadneedle Street, London, not later than 10.30 a.m., London time, on Tuesday, 12 December 1995. Payment for Bills allotted will be due on Thursday, 14 December 1995.
- Each tender at each yield for each maturity must be made on a separate application form for a minimum of ECU 500,000 nominal. Tenders above this minimum must be in multiples of ECU 100,000 nominal.
- Tenders must be made on a yield basis (calculated on the basis of the actual number of days to maturity and a year of 360 days) rounded to two decimal places. Each application form must state the maturity date of the Bills for which application is made, the yield bid and the amount tendered for.
- Notification will be despatched on the day of the tender to applicants whose tenders have been accepted in whole or in part. For applicants who have requested credit of Bills in global form to their account with ESO, Euroclear or CEDEL, Bills will be credited in the relevant systems against payment. For applicants who have requested definitive Bills, Bills will be available for collection at Customer Settlement Services, Bank of England after 1.30 p.m. on Thursday, 14 December 1995 provided cleared funds have been credited to the Bank of England's ECU Treasury Bills Account No. 59005518 with Lloyds Bank Plc, Bank Relations, St George's House, PO Box 787, 6-8 Eastcheap, London EC3M 1LL. Definitive Bills will be available in amounts of ECU 10,000, ECU 50,000, ECU 100,000, ECU 500,000, ECU 1,000,000, ECU 5,000,000 and ECU 10,000,000 nominal.
- Her Majesty's Treasury reserves the right to reject any or part of any tender.
- The arrangements for the tender are set out in more detail in the Information Memorandum on the UK Government ECU Treasury Bill programme issued by the Bank of England on behalf of Her Majesty's Treasury on 28 March 1995, and in supplements to the Information Memorandum. All tenders will be subject to the provisions of the Information Memorandum (as supplemented) and to the provisions of this notice.
- The ECU 50 million of Bills to be allotted directly to the Bank of England for the account of the Exchange Equalisation Account will be for maturity on 13 June 1996. These Bills may be made available through sale and repurchase transactions to the market makers listed in the Information Memorandum (as supplemented) in order to facilitate settlement.
- Copies of the Information Memorandum (and supplements to it) may be obtained at the Bank of England. UK Government ECU Treasury Bills are issued under the Treasury Bills Act 1977, the National Loans Act 1968 and the Treasury Bills Regulations 1968 as amended.

Bank of England
5 December 1995

Bank of Greece

US \$50,000,000

Floating Rate Notes due 1996

Notice is hereby given that, in accordance with the provisions of the above mentioned Floating Rate Notes, the rate of interest for the six months period from December 6, 1995 to June 6, 1996 has been fixed at 6.2504% per annum.

The interest payable on June 6, 1996 will be US \$3,201.71 in respect of each US \$100,000 Note.

BANQUE INTERNATIONALE DE LUXEMBOURG

Focal, Principal Paying and Agent Bank

BANQUE INTERNATIONALE DE LUXEMBOURG

Programme for the issuance of Debt Instruments

USD 10,000,000

Floating Rate Notes due 2004

Series 22 Tranche 1

Notice is hereby given that the rate of interest for the period from December 6, 1995 to June 6, 1996 has been fixed at 5.8584% per annum. The coupon amount due for this period is USD 2,876.37 per denomination of USD 100,000 and is payable on the interest payment date June 6, 1996.

The Focal Agent

Banque Internationale de Paris (Luxembourg) S.A.

Equitable Capital DHO Ltd.

Note Interest Rate Resets

Pursuant to the Indenture dated as of October 1, 1990, between the

Issuer and State Street Bank and Trust Company, as Trustee, notice is hereby given that for the interest

Accrual Period October 30, 1995 through April 30, 1996, the Note

Interest Rate applicable to the Senior Notes is 6.78875% and to the

Second Priority Senior Note is 7.71675%. Interest payable per

\$1,000,000 principal amount of a Senior Note on April 30, 1996 will be

\$54,477.81 and per \$1,000,000 principal amount of a Second

Priority Senior Note will be \$59,226.90.

First International Funding Co.

Floating Rate Notes

Pursuant to the Indenture dated as of June 3, 1990 among the Issuer, State Street Bank and Trust Company as Trustee, and Financial Security Assurance Inc. as the

insurer, notice is hereby given that for the interest Accrual Period from

December 4, 1995 to March 3, 1996, the applicable Note Interest

Rates are: for the Notes due 1996, 6.325%; for the Notes due 1998, 6.425%; and for the Notes due

2000, 6.575%.

1995 FINANCIAL REPORT

Scotiabank

Consolidated Statement of Income

(Canadian \$ millions)

For the financial year ended October 31

	1995	1994
Interest income		
Loans	\$ 8,997	\$ 8,090
Securities	1,832	1,431
Deposits with banks	597	391
	10,536	7,912
Interest expense		
Deposits	6,166	4,149
Subordinated debentures	209	172
Other	1,046	487
	7,421	4,808
Net interest income	3,115	3,104
Provision for credit losses	560	567
Net interest income after provision for credit losses	2,555	2,537
Other income		
Service charges	394	355
Credit fees	282	264
Investment banking	261	377
Foreign exchange and precious metals	118	150
Other	492	316
	1,557	1,462
Net interest and other income	4,112	3,999
Non-interest expenses		
Salaries	1,438	1,401
Pension contributions and other staff benefits	214	182
Premises and equipment expenses, including depreciation	588	533
Other	604	578
Restructuring costs	-	175
Write off of goodwill	-	182
	2,844	3,031
Income before the undemoted:	1,268	968
Provision for income taxes	371	455
Non-controlling interest in net income of subsidiaries	21	31
Net income for the year	\$ 876	\$ 482
Preferred dividends paid	104	97
Net income available to common shareholders	\$ 772	\$ 385
Average number of common shares outstanding (000's)	228,598	218,713
Net income per common share	\$ 3.38	\$ 1.76
Dividends per common share	\$ 1.24	\$ 1.16

Consolidated Balance Sheet Highlights

(Canadian \$ millions)

As at October 31

	1995	1994
Cash resources	\$ 16,728	\$ 11,388
Securities	21,574	25,566
Loans	97,088	88,779
Other	11,399	9,195
Total assets	\$ 147,189	\$ 132,928
Personal deposits	\$ 45,538	\$ 42,431
Business and governments deposits	41,747	35,880
Bank deposits	24,060	21,664
Total deposits	111,345	99,765
Other	25,275	23,918
Subordinated debentures	3,243	3,016
Shareholders' equity	1,575	1,100
Preferred Common	5,745	5,141
Total liabilities and shareholders' equity	\$ 147,189	\$ 132,928

Note 1: The Condensed Consolidated Financial Statements have been prepared in accordance with generally accepted accounting principles including the accounting requirements of the Superintendent of Financial Institutions Canada. The statements include the assets, liabilities and results of operations of the Bank and its subsidiaries and effectively controlled associated corporations. Investments in associated companies, where the Bank has significant influence or holds at least 20% but not more than 50% of the voting shares, are accounted for on the equity basis.

Note 2: As at October 31, 1995, 232,256,402 common shares were issued and outstanding (October 31, 1994: 225,256,775). The per share statistics have been based on the daily average of equivalent fully paid common shares.

Note 3: The Shareholders' Auditors have audited and reported on the Consolidated Financial Statements of the Bank as at and for the years ended October 31, 1995 and 1994. Their report is included in the Annual Report.

Note 4: Certain comparative amounts have been reclassified to conform with current year presentation.

Executive Offices: Scotia Plaza, 44 King Street West, Toronto, Canada M5H 1H1.
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THE BANK OF NOVA SCOTIA

INTERNATIONAL COMPANIES AND FINANCE

AMERICAS NEWS DIGEST

RJR Nabisco splits chief's dual role

RJR Nabisco, the US tobacco and food group under pressure to break itself up, yesterday surprised Wall Street by announcing it was separating the role of chairman and chief executive and appointing Mr Steven Goldstone, a relative newcomer, to the chief executive's job. Mr Charles Harper, who had previously filled both posts, will remain chairman.

Mr Goldstone, 49, joined RJR Nabisco as general counsel in February this year and became president in October. He had previously been a senior partner at the New York law firm Davis Polk & Wardwell, where he had been closely involved with a number of companies in big financial transactions and restructurings.

Mr Goldstone's legal background and his lack of hands-on management experience is likely to prompt speculation that he has been given the chief executive's job as part of a plan to break up the company. However, the appointment could also be seen as a response to the fact that RJR Nabisco and other US tobacco companies face litigation on a number of fronts.

RJR Nabisco said Mr Harper had asked the board to make the change because of "compelling personal circumstances" - believed to be illness - that had recently developed in his family.

Mr Goldstone had served as a close adviser to RJR Nabisco and its board since 1978, it said, and he knew the company well. RJR Nabisco added that it was not unusual for chief executives to come from a legal background in the US.

RJR Nabisco's shares were up 5% at \$29 1/2 in early trading.

Richard Tomkins, New York

Vartiy to buy back 3m shares

Vartiy, the North America-based car parks and diesel engine group, is using its ample cash resources for a further common share repurchase through the markets.

Vartiy plans to buy back 3m shares or 7.5 per cent of those outstanding, following completion of a previous programme to repurchase 4.5m shares. Under the first programme, Vartiy has bought back 4.2m shares so far at a cost of \$151m.

"Our financial strength has never been better and we can fund this new programme comfortably while investing in future growth," said Mr Victor Rice, chairman.

Robert Gibbens, Montreal

Nortel offers voice dialling

Northern Telecom, the telecommunications equipment arm of BCE, is bringing speech technology into the office and home, by introducing "voice dialling" to homes and single-line business subscribers.

It will carry out a six-month trial with Bell Canada, BCE's fully-owned telecommunications utility, and Stentor, representing most other Canadian telephone utilities.

With voice dialling, users can dial a number simply by speaking the name of the person or company. The telephone system is programmed to provide the service, not the home or office telephone itself.

The user can enter up to 50 frequently called names and numbers, each with an identification word which, when used, will prompt the system to dial the correct number.

Nortel has been developing speech recognition for 15 years. Progress has been determined partly by the availability of computing power.

The test will show market reaction. Nortel hopes to introduce many more applications soon, for example for call-forward and conference calls and for stock quotations - the caller names the stock he wants and the system replies by voice.

Robert Gibbens, Montreal

Internet groups join forces to head off Microsoft

By Louise Kehoe
in San Francisco

Internet technology leaders Sun Microsystems, Silicon Graphics and Netscape Communications have launched several software products and alliances aimed at bringing three-dimensional images and interactive multimedia to the World Wide Web.

The announcements were timed to pre-empt Microsoft's scheduled unveiling of its Internet strategy and new software products tomorrow.

In spite of its dominance in personal computer software, Microsoft has been slow to enter the growing market for Internet software. It is expected to introduce software development tools and software for Internet servers, the computers used to distribute information on the Internet.

However, Sun, Silicon Graphics and Netscape are determined to thwart Microsoft's efforts to establish its own software as the standard for the Internet. "Microsoft is welcome to join the Internet so

long as they don't try to turn it into a proprietary world", with software that will run only on the Windows operating system, said Mr Eric Schmidt, Sun Microsystems' chief technology officer.

As the marketing battle between the established Internet companies and Microsoft unfolds, competitors are casting Microsoft in the role of the enemy of "open standards" which ensure that all types of computers can communicate on the Internet.

Sun and Netscape yesterday

unveiled a software development tool called JavaScript which makes it easy to design multimedia pages for the World Wide Web. JavaScript will compete directly with a product code-named Blackbird, which Microsoft is expected to introduce tomorrow.

In a related announcement, Silicon Graphics, Sun Microsystems and Netscape formed a software development alliance. Combining Silicon Graphics' virtual reality software with Sun's Java programming language and JavaScript from Sun

and Netscape, the companies aim to accelerate the development of interactive multimedia content for use on the Internet or corporate networks.

The software will enable a broad range of new services on the Internet, the companies said. "Today Web users can visit thousands of hyperlinked sites; our vision is to transform those same sites into dynamic, virtual worlds," Mr Tom Jermoluk, president of Silicon Graphics, said.

Sun, Netscape and other Internet companies are com-

mitted to maintaining open standards for the global computer network. Mr Marc Andreessen, Netscape co-founder and technology vice president, said.

Nonetheless, Netscape could face significant competition from Microsoft as it begins its push into the Internet market.

In particular, Microsoft is expected to introduce a product code-named Glibralter for "servers" linked to the Internet, which will compete directly with Netscape's server software.

RBC lifts targets after record profit

By Bernard Simon
in Toronto

Record 1995 earnings have encouraged Royal Bank of Canada to raise its financial targets for the next three to five years.

RBC, Canada's biggest financial institution, said that, among other things, it would aim to increase its dividend payout from a range of 30-33 per cent of earnings, to 30-40 per cent.

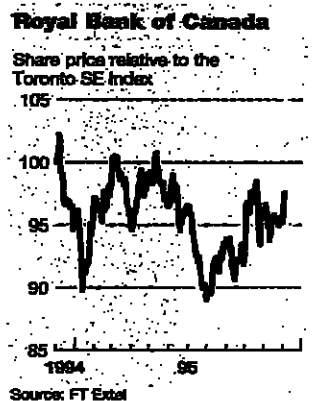
Earnings climbed to C\$1.26bn (US\$922m), or C\$3.49 a share, in the fiscal year to October 31, from C\$1.17bn, or C\$3.19, a year earlier.

The figures include unusual gains of C\$30m in 1995 and C\$50m in 1994 from the sale of non-performing Latin American bonds.

Return on equity dipped from 16.3 per cent to 16.6 per cent as a result of an 11 per cent increase in internally generated capital. Return on assets rose from 0.70 per cent to 0.73 per cent. Assets totalled C\$183.7bn on October 31, up 6 per cent from a year earlier.

The earnings were in line with analysts' forecasts, and RBC's share price showed little reaction. The shares were trading at C\$32 on the Toronto stock exchange at midday yesterday, down 38 cents.

Mr Mark Maxwell, an analyst at CIBC Wood Gundy, forecast that earnings would climb to C\$3.95 a share in the current fiscal year, based on a further - although smaller - drop in loan-loss provisions, a lower



expense ratio and a 6-7 per cent increase in fee income.

The record 1995 performance was largely attributable to a 29 per cent drop in loan-loss provisions charged against income to C\$580m. Non-performing loans shrank by 33 per cent to C\$2.9bn at the end of the fiscal year, including a 38 per cent drop in the bank's portfolio of troubled commercial property loans. In addition, non-interest expenses were unchanged, with lower employee and property costs offsetting an increase in deposit insurance premiums and accelerated depreciation of equipment.

Fourth-quarter earnings grew 6 per cent to C\$320m, or 90 cents a share. Return on equity was 16.3 per cent. As part of its "more aggressive" financial goals, RBC said it would in future aim for a return on equity of 16-18 per cent, compared with the current 16 per cent target.

Bidders line up for Voisey Bay stake

By Kenneth Gooding, Mining
Industry Correspondent,
in Kelowna

Almost all of the world's big mining companies are competing for a stake in the Voisey Bay nickel project in Labrador, Canada, according to Mr Robert Friedland, co-chairman of Diamond Fields Resources, the Canadian exploration company that found the deposit. It has been described by some analysts as the most important mining discovery for 30 years.

Two Canadian groups - Inco, the world's biggest nickel producer, and Teck Corporation, one of North America's leading gold companies - have already bought in to the project at a combined cost of C\$633m (US\$464m), but Mr Friedland insisted there was room for one more leading company to become involved.

"This is a very big salami

and it is getting bigger all the time. There is plenty for someone else to take a slice," he added.

Speaking before giving a presentation at the first Australian nickel conference here yesterday, Mr Friedland said Diamond Fields was under some pressure to make a quick decision. Confidentiality agreements signed with 30 leading mining groups, which included "standstill" arrangements preventing hostile bids by the signatories, mostly run out at the end of this year.

His board would prefer to make the decision before Christmas, he said, but delays were being caused by further discoveries at Voisey Bay in the past 30 days. "Every time we hit a new discovery it slows everything down. We want to know what we've got. We don't want to sell too early."

Nevertheless, the decision

about another partner inevitably was linked with a decision on when Voisey Bay would go into production and the scale of initial production. His board had set a target of making these decisions by June 30, at which time a "bankable" feasibility study would be ready.

Mr Friedland suggested the most likely outcome would be for production to start in 1999 at the rate of 138m lbs (60,000 tonnes) a year. He made it clear that he wanted Voisey Bay in production as early as possible to deter some of the many other potential nickel projects still in the pipeline.

He said: "If the nickel price comes down to \$3 a pound [because of Voisey Bay going into production] and sterilises some of the other projects, we won't be sorry."

Potential partners were offering several alternatives to Diamond Fields, he revealed. The

choices were between selling another part of the project to another stake in Diamond Fields itself, or a merger with another company.

Diamond Fields was also being offered shares in other projects in exchange for part of Voisey Bay. There was a chance it might forge "a more profound" relationship with either Inco or Teck.

Mr Friedland pointed to a research paper by Ms Robyn Storer, an analyst at CS First Boston, which suggested Inco would almost certainly have to mount a counter-bid if there were any chance of Diamond Fields falling into the hands of another leading mining company. This was because Inco's present 25 per cent stake in Voisey Bay "is not enough to protect it from losing its dominance of the nickel market" should this happen.

See Commodities

Wallace's future is in the cards

Friday is the day of reckoning for the Moore bid, says Bernard Simon

Mr Reto Braun will have three different speeches in his pocket when he arrives at a suburban Chicago hotel on Friday morning for the annual meeting of Wallace Computer Services.

Which speech the chief executive of Toronto-based Moore Corp delivers will depend on how many Wallace shareholders have sent in their gold-coloured proxy cards in support of Moore's four-month struggle for control of the Chicago business forms and information services group.

A last-minute agreement before the meeting cannot be entirely ruled out. Wallace's directors, who have so far refused even to meet Moore, are under intense pressure from institutional shareholders to sit down and strike a deal.

The last legal barrier to Moore's bid was removed on Monday, when a Delaware court dismissed Wallace's claim that the takeover infringed US antitrust laws. "If I was sitting on that board, I would be extremely nervous," says one New York-based shareholder.

Another portfolio manager, who accuses Wallace of a "paternalistic attitude", says that "we continue to be discouraged by Wallace's refusal to listen to stockholders".

The Canadian company's latest offer of \$60 a share, or a total of \$1.4bn, is almost 50 per cent higher than Wallace's share price when the battle was joined in late July.

Many shareholders and analysts are confident that Moore would raise its bid by a few dollars if it was assured of a deal. A Moore official says the offer will remain at \$60 "unless

we have some information that we don't have today, which is unlikely".

But investors are also nervous that Moore may walk away in frustration. Their fears are reflected in Wallace's share price, which stood at \$57.38, or \$2.62 below Moore's latest offer, on the New York stock exchange yesterday morning.

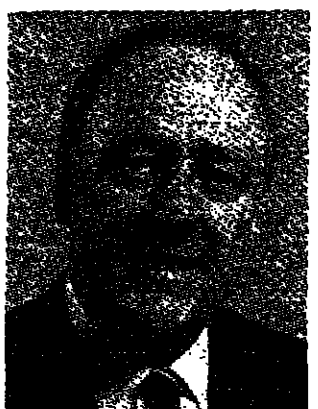
Wallace is widely regarded as a prize trophy in the unglamorous world of business forms, labels and direct-mail services. Its earnings, including expenses incurred in fending off Moore, soared by 44 per cent in the quarter to October 31, exceeding analysts' expectations.

The Chicago company, with record sales of \$214m in the latest quarter, has a reputation for innovation and entrepreneurship, especially in electronic business forms.

Moore, with annual sales of about \$2.4bn, is four times bigger than Wallace, and has a far wider international business. Once regarded as a slow-moving pillar of Canada's business establishment, Moore has gained a new lease of life since Mr Braun, a former computer industry executive, took the helm two years ago.

By acquiring Wallace, Mr Braun would bring a blast of fresh air into Moore, especially its US operations. He would also put Moore in the vanguard of the consolidation that analysts predict is in store for the slow-growing business forms sector.

However, Wallace has insisted that shareholders would be best served if the company remained independent. It has tried to convince



Reto Braun: breathed new life in Moore when he took helm

outsiders that it has a stellar future which has yet to be reflected in earnings.

But many of Wallace's senior managers, including Mr Bob Cronin, the chief executive, have spent most of their working lives with the company, fuelling an impression that they are determined to block an outside bid, no matter how generous.

Wallace has mounted a proxy campaign of its own in the hope of defeating Moore's proposals at the annual meeting. Mr Cronin and his chairman, Mr Theodore Dinitron, visited several shareholders last week in an effort to drum up support.

Goldman Sachs, the US investment bank advising Wallace, has also scoured North America, Europe and Japan for a white knight.

A Wallace official said yesterday that "overall, we are very happy with the level of support we are getting. Short-term people who are in it for a couple of bucks don't see anything longer term than a

couple of weeks. Not all investors have invested on that basis".

If no deal is reached before the annual meeting, emotions are bound to run high. Moore has sought shareholders' support to dissolve Wallace's poison pill and toss out its entire board of directors.

However, the proposal to overturn the poison pill requires the support of 80 per cent of Wallace's outstanding shares. Some 73.5 per cent of the shares were tentatively tendered to Moore last month. But the shares cannot be legally transferred so long as the poison pill remains intact.

The second best outcome for Moore would be a clear majority of votes, which would enable it to elect three nominees to the Wallace board. An arch-rival's presence in the boardroom would greatly complicate the ability of Wallace's present directors and management to run the company.

"I don't see how they can live with a competitor on the board," says one Wallace shareholder.

Views differ on whether Moore will succeed in reaching the 80 per cent goal. Most shareholders, especially the arbitrageurs who now hold an estimated 40 per cent of Wallace's stock, would prefer the matter to be settled before the proxy fight comes to a head.

Mr David Simon, owner of Twin Securities, a New York money-management firm which is a sizeable Wallace shareholder, echoes a widely-held view with his comment that "Moore has to pay a little more, and Wallace has to sit down and negotiate".

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<p>\$150,000,000</p> <p>ABN AMRO Bank N.V.</p> <p>100 Year 7.125% Subordinated Deposit Notes Due October 15, 2093</p> <p>Price 99.178% and Accrued Interest</p>	<p>\$300,000,000</p> <p>The Walt Disney Company</p> <p>100 Year 7.55% Senior Debentures Due July 15, 2093</p> <p>Price 100% and Accrued Interest</p>

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Fidelity Funds SICAV has declared an interim dividend in respect of shares of each of the underlisted sub-funds held at close of business on 31st October 1995. The dividend amount, Bearer coupon number and payment currency is as indicated below. In the case of registered shares, dividends will be paid or reinvested in additional shares of the relevant fund as appropriate on payment date of 12th December 1995. Dividends not cashed within 5 years from payment date will lapse and the dividend will revert to the Fund.

SUB-FUND NAME	PAYMENT CURRENCY	DIVIDEND PER SHARE	COUPON NUMBER
USD Bond Fund	USD	0.1522	10
Sterling Bond	GBP	0.0043	20
Yen Bond Fund	JPY	25.7700	10

Dividends will be paid to holders of Bearer Shares in the currency of denomination of the sub-fund (or by arrangement with the Paying Agent and at the cost of the shareholder, in any other currency) against tender of the coupon number listed.

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Fidelity Investments

SIV INDUSTRIES LIMITED

NOTICE IS HEREBY GIVEN that a Meeting of Warrant Holders (those who are registered as holders or joint holders in the Warrant Register of the 2,356,000 Warrants issued on 09 August 1994, listed on the Luxembourg Stock Exchange and entitling the holder to subscribe to 1 GDR of SIV Industries at US\$6.37) will be held at **Stimons & Stimons**, 21 Wilson Street, London, England on 28 December 1995 at 3:00 p.m. for the purpose of considering and, if thought fit, passing the following Resolution as an Extraordinary Resolution:

"RESOLUTION"

1. THAT it is hereby resolved that:

in relation to the 2,356,000 Warrants issued on 09 August 1994, listed on the Luxembourg Stock Exchange and entitling the holder to subscribe to 1 GDR of SIV Industries at US\$6.37 during an exercise period currently expiring on 31 January 1996, the expiry shall be extended until and including 09 August 1996, and references in any document relating to the Warrants to the "Expiry Date" shall take effect accordingly, all other terms remaining unchanged."

NOTE:

A Warrant holder entitled to vote at the meeting convened by the Notice set out above is entitled to appoint a proxy to attend, who for all purposes in connection with the meeting specified in the appointment shall be deemed to be the holder of the Warrant. A Warrant holder may appoint a proxy by executing and delivering a form of proxy in the English language to the specified office of a Warrant Agent or the Warrant Registrar not later than 24 hours before the time fixed for the meeting or, in the case of corporations, may appoint representatives by or pursuant to a resolution in the English language of their Directors or other governing body and by delivering an executed copy of such resolution to a Warrant Agent or the Warrant Registrar not later than 24 hours before the time fixed for the meeting.

As the Warrants are held in global form, investors entitled to Warrants should instruct the clearing system through which they hold their certificates (Euroclear, Cede Bank, Société Générale Trust Company of New York as operator of Euroclear, Cede Bank, Société Générale Trust Company of New York as operator of Euroclear) to exercise the vote with respect to such Warrants on their behalf by appointing a proxy or representative. Details of the arrangements for giving such instructions are available from each clearing system.

Dated: 6th December 1995

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Planning for a swift return to top division

The drive to streamline Inchcape should accelerate next year with the arrival of Sir Colin Marshall as chairman

While laudable in theory, that ambition may be difficult to achieve in practice. Even after the sweeping reorganisation announced in September – when it reported first-half profits down from £125.5m to

streamline Inchcape
next year with the

earnings from areas like car accessories could depend on the successful outcome of its current negotiations with manufacturers. But the company, which alone accounts for about 40 per cent of Inchepec's cars.

Mr Cushing admits that Inchepec's problems will not ease in the short-term, but he says the company's restructuring programme will improve the

Despite its likely demise from FT-SE 100, Mr Cushing says Inchepec is on the mend. Shareholders may not see the benefits of the restructuring but he nevertheless remains confident: "We are concentrating only on areas where there is clear room for improvement, and as that comes through the share price and the capitalisation will recover."

Inchcape's ignominious expulsion from the FT-SE 100 index, due to be announced today, sets a seal on two terrible years during which its shares have underperformed the stock market by 80 per cent. Much of its problem has been external perception. In the early 1990s, it was seen as a recession-friendly stock, offering exposure to fast growing Asian markets. In reality, it is a volatile, low quality agency business, which deserves to be rated accordingly. Indeed, its management should not be held fully responsible for the decline in pre-tax profits before exceptional from £27.7m in 1993 to an expected £140m this year.

It was slow to launch the recent restructuring, which will boost next year's profits by £30m. But problems with the product offerings at Toyota and Mazda, the strong yen and the collapse in consumer confidence in Hong Kong have all been outside Inchcape's control, and hard to predict.

At least the arrival of Sir Colin Marshall as chairman should sharpen the focus on costs. The first cost that could sensibly be cut is the dividend. This will scarcely be covered by current year profits, even before restructuring provisions. And with a yield of almost 8 per cent, a cut is clearly expected. But it remains hard to see much upside in the shares. They are trading at a chunky market premium, even based on 1995 forecasts. With the potential for franchise losses and further volatility of earnings, Inchcape deserves a discount rating, so a lot of future recovery has already been written into the shares.

Inchcape

Share price relative to the FT-SE All-Share Index

Year	Share price relative to the FT-SE All-Share Index (%)
1970	100
1975	250
1980	350
1985	100
1990	200
1995	50

Source: FT Data

Celebrated joins Aim

Recorded turnover for the year to March 26 1995 of £3.95m with pre-tax profits of £320,000. About £1.6m from the placing will go into the company, with the rest used to redeem £380,000 of preference shares held by 3i, after which it will have 15.5 per cent of Celebrated.

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1. *Journal of the American Medical Association*, 1997; 277: 1039-1043.

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COMMODITIES AND AGRICULTURE

Pulp price cycle turns downwards

By Christopher Brown-Humes in Stockholm

Leading European and North American pulp producers have announced price cuts for the first time in two years, giving a clear sign that the forestry market cycle is starting to turn downwards.

Norske Skog, the Norwegian pulp and paper group, yesterday followed Sweden's Skanska Skogsgarna in cutting list prices for northern bleached softwood kraft pulp to \$325 a tonne from \$1,000. Last week Weyerhaeuser and other North American forestry companies announced reductions.

The announcements have added to investor pessimism about the outlook for the sector, deepening the recent downward spiral in share prices. Swedish forestry stocks have fallen 4 per cent over the past two days.

Price cuts are not unexpected given the recent increase in pulp stocks and reduced demand from fine paper producers who are working off stock backlogs. Recent attempts to lift softwood pulp prices to \$1,000 a tonne have been resisted by buyers, and hardwood pulp prices have also been under pressure. It is the first time that prices have

eased since 1993 when they touched a low of \$380 a tonne. Many big Nordic pulp and paper groups are cutting production to try and stabilise prices, but analysts doubt their efforts will be sufficient to prevent further declines.

Morgan Stanley is predicting average pulp prices of \$380 a tonne in 1996, with prices falling to a low of about \$300 before recovering later in the year. The development comes at a time when experts continue to debate whether the industry is heading into a new recession, or whether it is merely seeing a prolonged correction caused by inventory build-ups. The optimists are comforted by evidence that underlying demand for most pulp and paper products is holding up.

"What we are seeing is a temporary hiccup. Once the destocking is over, we expect demand to rise due to healthy world economic growth," said Mr Torsten Nykopp, senior vice-president of Kymmene, the Finnish pulp and paper group.

Others were more pessimistic. Mr Lennart Holm, managing director of Sweden's Stora Cell, said: "When we start to cut prices it is hard to start increasing them again."

Australian crops recover

By Nikil Tait in Sydney

Australia's winter crop production this year could total around 27.5m tonnes, according to the latest forecasts from the Australian Bureau of Agriculture and Resource Economics, the government-owned forecasting agency. This would raise the harvest to about twice last year's drought-depressed level.

The latest forecast is also some 500,000 tonnes more than Abare was previously predicting, reflecting the rains that fell in October and November. Wheat production is now put

at 17.1m, a 92 per cent increase on 1994-95. In Queensland, worst hit by the drought, there could be production of around 620,000 tonnes, more than three times the last harvest. In New South Wales, which was also hit badly by last season's dry conditions, the wheat crop could increase almost five-fold to 4m tonnes.

The recent rain also boded well for rain-grown cotton, although continued shortages of irrigation water will curtail output overall. The area under cotton is estimated at around 269,400 hectares, some 47,900 more than last year.

Kalgoorlie gripped by fresh attack of nickel fever

A rich find is reviving memories of the Poseidon boom that peaked in 1970, writes Kenneth Gooding

Nickel fever is gripping Kalgoorlie again following the discovery of an extremely rich deposit 45km from this Western Australian town by a company controlled by Outokumpu, the Finnish mining and metals group.

The announcement of the discovery two weeks ago sent the shares of listed companies exploring in the same area soaring. Shares in Mt Kerey, which owns much of the land adjoining Outokumpu's Silver Swan project, jumped from 65 cents to \$1.50 and it has yet to drill one hole. Mt Kerey is one of the companies controlled by Mr Joe Gutnick, best known so far for his success with Great Central Mines, the Western Australian gold mining company.

This is somewhat reminiscent of Kalgoorlie's previous nickel boom 25 years ago, which helped to establish Australia as one of the world's biggest producers of the metal - used mainly in the production of a variety of stainless steels. Today Australia is the third largest producer of nickel in the world and 96 per cent originates in Western Australia.

That boom 25 years ago is inevitably linked with the name Poseidon, a company whose share price soared from 69 cents to \$220 when the fever was at its height. Australia's first nickel conference, which started on Monday, has been timed to mark the 25th anniversary of the Poseidon share price reaching its peak.

World nickel demand will continue to outstrip supply in 1996, setting the stage for a strong market, Inco says in its customary upbeat annual forecast, writes Bernard Simon in Toronto.

Mr Peter Salathiel, executive vice-president for metals marketing, told a group of analysts in Toronto that "there is the potential over the next couple of years for an explosion in nickel prices". Three-month nickel was \$6,037.50 a tonne on the London Metal Exchange yesterday.

Total 1996 demand is expected to be unchanged at 1m tonnes while supplies are forecast to edge up to 860,000 tonnes from 816,000. The shortfall would be made up by a further drawdown from stocks.

Inco, which produces about 30 per cent of the world's nickel, expects its own output to rise by about 6.5 per cent in 1996 to 195,000 tonnes. This year's output was originally targeted at that level, but is now likely to total only 180,000 tonnes, as a result of labour disruptions, adverse ground conditions at some of its older Canadian mines, and unexpected equipment breakdowns.

The bullish market forecast is based on further growth in stainless steel production, which makes up about two-thirds of nickel consumption, a 2-3 per cent annual growth in world industrial production, especially in Asia and

Europe, and the absence of significant new nickel production capacity until late 1996.

Shipments from Russia and other former Soviet bloc countries are less of a destabilising factor in the market than they were a year or two ago.

The rich Voisey Bay deposit in Labrador, in which Inco bought a 30 per cent interest earlier this year, may not come into production until 2000. Aboriginal land claims and tax negotiations are among the issues that have yet to be settled.

Voisey Bay is expected to be one of the world's lowest-cost nickel mines, with annual production of at least 50,000 tonnes.

Inco expects to complete a feasibility study late next year on developing the large Goro deposit in New Caledonia. A mine could come on stream by the turn of the century. Mr Scott Hand, Inco's president, said that present projections suggested an initial capacity of 22,000 tonnes a year, but that other alternatives were being studied.

Inco said it was especially keen to expand markets for high-value specialty products, such as nickel powders, used mainly in batteries. Powders, which carry a premium price, now make up about 9 per cent of Inco's sales volume. "There seems to be an insatiable demand," Mr Salathiel said.

Although the timing of this conference could hardly have been better, there is one gap in the programme. Mining Project Investors, 31 per cent owned by Outokumpu and the Finnish company's 50 per cent partner in the new Silver Swan discovery, is a private company, and for the time being wants to keep as much information to itself as possible.

Not only has it decided to stay away from the conference, it has asked other companies associated with the project, including Outokumpu and some suppliers, to avoid being asked difficult questions. This is a pity because it is the fourth time that the MPI team has been associated with a substantial nickel discovery. It found Greenvale in Queensland, and two others in Western Australia, Nepean and Mt Keith. The MPI team is headed by Mr Ken Fletcher, managing director and the geologist is Mr David Burt. They and most of the other MPI management were previously with Australia Consolidated Minerals, a company that was jointly taken over by Western Mining Corporation and Noranda in 1991. The acquisition split the company and Noranda took the gold operations while WMC held on to the nickel, subsequently spending \$450m to bring Mt Keith into production in October last year.

Outokumpu says that Silver Swan contains 440,000 tonnes of sulphide nickel ore with a nickel content of up to 18 per

cent, giving an "indicated resource" of 60,000 tonnes of the metal. Initial studies indicate that output could be about 10,000 tonnes of nickel a year, contained in concentrate (an intermediate material).

The Silver Swan deposit is not particularly large - output would represent an addition of only just over 1 per cent to world production - but the grade, or percentage of metal in the rock, is the highest ever discovered in Western Australia and, just as important, it was discovered between 200 metres and 500 metres below surface. "Most exploration holes in Western Australia have only gone down to about 30 metres," points out Mr Stephen Hamblin, analyst with stockbroker J B Warr. "That's what is causing all the excitement. The deposit might be small but it means that any place not previously drilled to a depth of 200 metres might have potential."

Mr Mark Cutafani, operations manager, nickel, for Western Mining, Australia's largest producer of the metal, echoes this enthusiasm. "I hope Silver Swan is not a one-off. I hope we will find a few more like it," he says.

Silver Swan is not the only nickel project under consideration. There are three others in the Western Australian gold fields: Resolute, Samantha's Ridge project, Anaconda, and the Mt Murrumbidgee, and Dominion Mining's Yakabindie. If all four go ahead it would involve capital

expenditure of about \$3.5bn. Also, when combined with the proposed expansion of Mt Keith, the projects would help to double Western Australian nickel annual output to about 200,000 tonnes.

New techniques are also driving the nickel boom. So far Australian producers have concentrated almost entirely on hard rock, sulphide resources and ignored nickel in so-called lateritic ores. These are weathered and crumbly clays and need to be processed in entirely different ways. Only 30 per cent of the world's nickel is produced from lateritic ores but they contain 70 per cent of the reserves and Mr George Cash, Western Australia's minister for mines, says: "The economic development of lateritic nickel would add a new dimension to the industry of this state as this type of ore makes up roughly half of our known resources."

He says: "Not since the mid-1960s boom, when nickel was the queen of Western Australia's mining industry, has there been so much interest in nickel developments in this state. The fact that discoveries continue to be made not only in new regions, but also in Western Australia's more mature areas, indicates that Western Australia's vast geological potential is far from fully defined. Perhaps many of the easily won, near-surface deposits have been identified. However, the discovery of concealed ore bodies remains a challenge to the ingenuity of explorers."

Freeport updates reserves at Indonesian copper-gold-silver mine

By Richard Mooney

Freeport-McMoran Copper & Gold announced yesterday that additional deep drilling and mine design studies at its Grasberg copper-gold-silver deposit in Irian Jaya, Indonesia, had increased proven and probable reserves of the three metals by 57 per cent, 43 per cent and 33

per cent respectively. The New Orleans-based company said reserves had been updated by 600m tonnes containing, on average, 1.18 per cent copper, 1.11 grams per tonne of gold and 4.54 grams per tonne of silver. The extra reserves have been located directly beneath the Grasberg open-pit mine but include ores

that are not mineable by the open-pit method. These will be mined underground when open-pit mining is completed. "However," said Freeport, "studies are under way to develop alternative mining plans to allow for co-production of a high-grade (3 per cent to 5 per cent copper equivalent) portion of these new

reserves in conjunction with the mining of the Grasberg open-pit reserve."

Under joint venture arrangements between Freeport and Britain's RTZ Corporation the latter has a right to take a 40 per cent interest in new reserves discovered in the area containing the Grasberg deposit, conditional on its pro-

viding funding of up to \$575m for expansion of existing mine and milling operations. "RTZ would receive 100 per cent of incremental cash flow attributable to the expansion until it has received an amount equal to the funds it has provided plus interest," on an amount representing Freeport's 60 per cent share of

the expansion costs, the company said.

LME WEEKEND STOCKS (at Monday's close)	
Aluminium	-3,000 to 588,700
Aluminium alloy	+400 to 57,000
Copper	+1,825 to 228,800
Lead	-2,550 to 150,875
Nickel	-200 to 47,100
Zinc	-1,300 to 882,250
Tin	-250 to 12,380

COMMODITIES PRICES

BASE METALS

Prices from Amsterdam Metal Trading

ALUMINIUM, 99.7 PURITY (\$ per tonne)

	Close	3 mths
Close	1639.5-40.5	1677-78
Previous	1650.5-51.5	1688-89
High/Low	1639/1638	1688/1671
AM Official	1637-37.5	1676-77
Kerb close	1637-37.5	1676-77
Open int.	221,175	1571-2
Total daily turnover	41,201	

ALUMINIUM ALLOY (\$ per tonne)

	Close	3 mths
Close	1400-10	1440-45
Previous	1415-20	1458-58
High/Low	1401-1	1455/1450
AM Official	1401-2	1440-45
Kerb close	1401-2	1440-45
Open int.	4,850	1445-50
Total daily turnover	1,805	

LEAD (\$ per tonne)

	Close	3 mths
Close	752.5-4.5	728-29
Previous	752.5-4.5	724-25
High/Low	752.5-4.5	728-29
AM Official	752.5-4.5	728-29
Kerb close	752.5-4.5	728-29
Open int.	31,372	728-29
Total daily turnover	8,110	

NICKEL (\$ per tonne)

	Close	3 mths
Close	7205-15	8035-40
Previous	7330-30	8020-30
High/Low	7205-15	8070/7970
AM Official	7205-15	8070-7970
Kerb close	7205-15	8070-7970
Open int.	44,101	8020-30
Total daily turnover	11,623	

TIN (\$ per tonne)

	Close	3 mths
Close	6135-35	6235-40
Previous	6145-35	6215-20
High/Low	6135-35	6235/6210
AM Official	6135-35	6215-20
Kerb close	6135-35	6215-20
Open int.	17,342	6235-40
Total daily turnover	6,115	

ZINC, special high grade (\$ per tonne)

	Close	3 mths
Close	1216-17	1047-41.5
Previous	1216-17	1037-39
High/Low	1011	1045/1025
AM Official	1011	1025/1015
Kerb close	1011	1025/1015
Open int.	52,312	1034-43.5
Total daily turnover	10,963	

COPPER, grade A (\$ per tonne)

	Close	3 mths
Close	2960-55	2722-23
Previous	2960-55	2730-31
High/Low	2960-55	2722/2711
AM Official	2960-55	2722-23
Kerb close	2960-55	2722-23
Open int.	173,250	2717-8
Total daily turnover	58,754	

LME AM Official 625 index: 15,442

LME Closing 625 index: 15,430

Spot 15423 index: 15,437; 6 mths: 15,581; 9 mths: 15,526

HIGH GRADE COPPER (COMEX)

	Sett	Days	High	Low	Open
Dec	131.25	132.75	132.20	131.20	132.75
Jan	127.15	128.65	128.50	127.10	128.65
Feb	124.25	125.75	125.60	124.20	125.75
Mar	121.35	122.85	122.70	121.30	122.85
Apr	118.45	119.95	119.80	118.40	119.95
May	115.55	117.05	116.90	115.50	117.05
Jun	112.65	114.15	114.00	112.60	114.15
Jul	109.75	111.25	111.10	109.70	111.25
Aug	106.85	108.35	108.20	106.80	108.35
Sep	103.95	105.45	105.30	103.90	105.45
Oct	101.05	102.55	102.40	101.00	102.55
Nov	98.15	99.65	99.50	98.10	99.65
Dec	95.25	96.75	96.60	95.20	96.75
Jan	92.35	93.85	93.70	92.30	93.85
Feb	89.45	90.95	90.80	89.40	90.95
Mar	86.55	88.05	87.90	86.50	88.05
Apr	83.65	85.15	85.00	83.60	85.15
May	80.75	82.25	82.10	80.70	82.25
Jun	77.85	79.35	79.20	77.80	79.35
Jul	74.95	76.45	76.30	74.90	76.45
Aug	72.05	73.55	73.40	72.00	73.55
Sep	69.15	70.65	70.50	69.10	70.65
Oct	66.25	67.75	67.60	66.20	67.75
Nov	63.35	64.85	64.70	63.30	64.85
Dec	60.45	61.95	61.80	60.40	61.95
Jan	57.55	59.05	58.90	57.50	59.05
Feb	54.65	56.15	56.00	54.60	56.15
Mar	51.75	53.25	53.10	51.70	53.25
Apr	48.85	50.35	50.20	48.80	50.35
May	45.95	47.45	47.30	45.90	47.45
Jun	43.05	44.55	44.40	43.00	44.55
Jul	40.15	41.65	41.50	40.10	41.65
Aug	37.25	38.75	38.60	37.20	38.75
Sep	34.35	35.85	35.70	34.30	35.85
Oct	31.45	32.95	32.80	31.40	32.95
Nov	28.55	30.05	29.90	28.50	30.05
Dec	25.65	27.15	27.00	25.60	27.15
Jan	22.75	24.25	24.10	22.70	24.25
Feb	19.85	21.35	21.20	19.80	21.35
Mar	16.95	18.45	18.30	16.90	18.45
Apr	14.05	15.55	15.40	14.00	15.55
May	11.15	12.65	12.50	11.10	12.65
Jun	8.25	9.75	9.60	8.20	9.75
Jul	5.35	6.85	6.70	5.30	6.85
Aug	2.45	3.95	3.80	2.40	3.95
Sep	-0.45	1.05	0.90	-0.50	1.05
Oct	-3.55	-2.05	-1.90	-3.60	-2.05
Nov	-6.65	-5.15	-5.00	-6.70	-5.15
Dec	-9.75	-8.25	-8.10	-9.80	-8.25
Jan	-12.85	-11.35	-11.20	-12.90	-11.35
Feb	-15.95	-14.45	-14.30	-16.00	-14.45
Mar	-19.05	-17.55	-17.40	-19.10	-17.55
Apr	-22.15	-20.65	-20.50	-22.20	-20.65
May	-25.25	-23.75	-23.60	-25.30	-23.75
Jun	-28.35	-26.85	-26.70	-28.40	-26.85
Jul	-31.45	-30.00	-29.85	-31.50	-30.00
Aug	-34.55	-33.05	-32.90	-34.60	-33.05
Sep	-37.65	-36.15	-36.00	-37.70	-36.15
Oct	-40.75	-39.25	-39.10	-40.80	-39.25
Nov	-43.85	-42.35	-42.20	-43.90	-42.35
Dec	-46.95	-45.45	-45.30	-47.00	-45.45
Jan	-50.05	-48.55	-48.40	-50.10	-48.55
Feb	-53.15	-51.65	-51.50	-53.20	-51.65
Mar	-56.25	-54.75	-54.60	-56.30	-54.75
Apr	-59.35	-57.85	-57.70	-59.40	-57.85
May	-62.45	-60.95	-60.80	-62.50	-60.95
Jun	-65.55	-64.05	-63.90	-65.60	-64.05
Jul	-68.65	-67.15	-67.00	-68.70	-67.15
Aug	-71.75	-70.25	-70.10	-71.80	-70.25
Sep	-74.85	-73.35	-73.20	-74.90	-73.35
Oct	-77.95	-76.45	-76.30	-78.00	-76.45
Nov	-81.05	-79.55	-79.40	-81.10	-79.55
Dec	-84.15	-82.65	-82.50	-84.20	-82.65

Treasuries mixed after spending data

By Lisa Branstetter in New York and
Antonia Sharpe in London

US Treasury prices were mixed yesterday morning as bonds in the middle of the maturity spectrum slipped on the heels of four sessions of sharp gains, while the shortest and longest term notes gained on weak economic news.

Near-midday, the 30-year Treasury was up 1/8 at 111 1/2, the two-year note added 1/8 to 100 1/2, yielding 5.274 per cent. But three-year to 10-year notes were flat to modestly lower.

Bonds were lower across the maturity spectrum in early trading, but the ends of the spectrum received a lift from signs that consumer spending this season might not be enough to lift the economy.

An index of chain store sales produced by Mitsubishi Bank/

Schroder Wertheim showed that consumer spending fell 0.2 per cent last week compared with the previous week. More retail sales figures were expected before 3pm.

The sales figures raised hopes that the Federal Reserve might lower interest rates at the December 19 meeting of its open market committee.

Hopes for lower interest rates and a deficit-cutting budget package have fuelled the rally that has brought the long bond yield down 11 basis points in the past four sessions.

Many on Wall Street expect the market to trade in a narrow range until Friday, when the Labor Department is due to release figures on November employment levels.

UK gilts closed higher ahead of today's £30n auction of 7.5

per cent gilts due 2006. On Liffe, the March long gilt future rose 1/8 to 110 1/4 in modest volume of just over 54,000 contracts.

The market was also firmer in the hope that today's October's industrial production and manufacturing output data

Although Mr Briscoe was confident that the Bank of England would be able to sell the stock, which he noted was being issued with the same terms as the stock in the auction that failed in September, he said he would be surprised if the fall - the difference between the highest and the average accepted yield - was as short as 2 to 3 basis points.

"Since many funds have missed out on the recent rally, they might want to use the auction to pick up stock at a quarter to half-point below market prices," Mr Briscoe said. He therefore expected the fall to be about 10 basis points.

Mr Andrew Roberts, gilt analyst at Nikko, said there had been little evidence of funds making space for the auction.

"The market has not weakened in the same way that it usually does before auctions," he said.

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Mr Andrew Roberts, gilt analyst at Nikko, said there had been little evidence of funds making space for the auction.

"Levels are of less importance in this strong environment," he said, adding that he expected the yield on long-dated gilts to fall to 7.50 per cent before the end of the year from a current level of 7.74 per cent.

Bargain-hunting by international investors after Monday's fall helped French government bonds to move higher yesterday, but the mood remained uncertain despite hopes that the government would stand firm on its welfare reforms in the face of pressure from the unions.

The firmer franc also helped the bond market, enabling the yield spread over Germany to narrow to 80 basis points from 91 points the previous day. The December notional 10-year government bond future rose 0.84 to 119.84.

Chicago exchanges suffer fall in volumes

By Laurie Morse in Chicago and
Conner Middelmann

Chicago's two big futures exchanges posted substantial falls in business in November, with the Chicago Mercantile Exchange proving most vulnerable to waning volatility in short-term interest rates.

The CME said November turnover dropped 30.5 per cent year-on-year to 13.5m contracts. Volume in its flagship eurodollar futures and options contracts - which comprise more than 95 per cent of exchange business - fell more than 36 per cent. For the January-November period, the CME experienced an 8.3 per cent year-on-year volume decline to 188m contracts.

The Chicago Board of Trade said volume fell by 8.6 per cent in November to 17.3m contracts. At the end of November, the CBOT had traded 195.7m contracts in the year-to-date, down 4.8 per cent from the same period of 1994.

The London International Financial Futures and Options Exchange traded 13.5m futures and options contracts during November, up 3 per cent on the previous month but down 1 per cent against November 1994. In the year to end-November, volume fell to 125m contracts, down 14 per cent on last year.

Trading volume on Maff, the French futures exchange, rose by 2.1 per cent on the month and by 18.6 per cent on the year. In the year to end-November, volume totalled 66.9m - a drop of 26 per cent year-on-year.

Volume in the three-month Fibor futures and options contracts rose by 106 per cent and 241 per cent, respectively.

DTB, Germany's derivatives exchange, posted a 14.7 per cent rise on the month and a 38 per cent rise on the year.

St Petersburg tests waters for foreign debt sales

By Anthony Robinson

The Russian city of St Petersburg is hoping to follow the Czech capital of Prague and the Polish capital of Warsaw, and partially finance development projects through municipal bond sales to foreign investors.

Mr Anatoly Sobchak, mayor of St Petersburg, told a meeting of potential investors that the city council's decision "to test the waters" in London was a response to the interest shown by Russian-based foreign investors in recent high-yielding domestic bond issues.

The latest R5100bn (\$22m) issue of three-month bonds for domestic investors was sold last week at an average yield of 12.46 per cent.

Until now foreign investors have in effect been barred from investing in short-term Russian domestic bonds.

However, a recent decision by the ministry of finance to permit St Petersburg to issue bonds with 18-month or two-year maturities makes it theoretically possible for foreign investors to buy them. Mr Igor Kostikov, managing director of AVK Securities and Finance, a St Petersburg-based securities firm, told a conference organised by the Financial Times.

In practice, western bankers say there is little chance of raising substantial funds in this way until Russia receives a credit rating from international rating agencies, opening the way for municipalities such as St Petersburg to acquire their own ratings.

However, earlier this year Dresdner Bank set a precedent by extending a \$10m loan to the city to finance medical improvements and next year foreign investors will be invited to buy the new long-term municipal bonds.

The bonds will be backed

Swedish mortgage bank issues \$500m of FRNs

By Conner Middelmann

A \$500m issue of floating-rate notes for Splintab, the Swedish mortgage bank, received a warm welcome yesterday. Yielding 18 basis points over the three-month London interbank offered rate at the re-offer price, it was widely judged to have been fairly priced.

INTERNATIONAL BONDS

"The deal was priced to clear at the re-offer," said a syndicate official at lead manager Morgan Stanley.

He said banks and investment funds were keen on double-A rated paper that offered an improving credit story and scope for spread tightening.

SBAB, Sweden's national housing finance corporation, issued floating-rate bonds in the D-Mark sector, though these were more tightly priced than Splintab's bonds, at a

spread of 11.5 basis points over Libor at the re-offer price.

While some dealers deemed the SBAB deal too aggressively priced, lead manager UBS said the terms were justified by supply and demand considerations. "Unlike in the dollar sector, there is very little product at Libor-plus levels in D-Marks, and there's a lot of liquidity from banks with D-Marks to invest."

Elsewhere, Hitachi Credit Corporation launched a successful issue of \$300m of five-year bonds via J.P. Morgan. Yielding 45 basis points over Treasuries at re-offer, the deal sold out quickly, with the spread narrowing by several basis points. Amid concern over the soundness of Japanese financial institutions, Hitachi did well to price its bonds generously, dealers said.

BV Overseas Finance raised \$250m in the South African rand sector via Hambros Bank. A large portion of the 14 per cent, one-year bonds were

NEW INTERNATIONAL BOND ISSUES									
Borrower	Amount	Coupon	Price	Maturity	Yield	Spread	Book-runner		
US DOLLARS									
Spanish Credit Corp.	500	6.00	98.84	May 2001	0.30	-	Morgan Stanley & Co. Int.		
Hitachi Credit Corp.	200	5.875	98.55	Dec 2000	0.30	+45/100	J.P. Morgan Securities		
Kurama Co. (Japan)	200	2.825	100.00	Dec 1999	2.25	-	Dawson Europe		
Stabroek Petroleum Co. (Guyana)	100	2.825	100.00	Dec 1999	2.25	-	Yamashita Int'l (Europe)		
Fluoro. Series A22	30	6.00	100.00	Dec 2005	undfcd.	-	Lefranch Brothers Int'l.		
D-MARKS									
SEABIS	300	(a)	98.94	Jan 2001	0.175	-	UBS (Germany)		
LUXEMBOURG FRANCES									
Daimler-Benz Canada (a)	20n	6.25	102.85	Dec 2001	1.575	-	BGL/BIL		
ITALIAN LIRE									
WestLB Finance Curaçao (a)	150bn	10.50	100.97	Jan 1998	1.125	-	San Paolo, Turin		
DANISH KRONER									
ASU-KOER (Denmark)	400	6.50	101.95	Dec 2000	1.875	-	Asu-Koer Bank		
SOUTH AFRICAN RAND									
Bayover Overseas Finance	250	14.00	100.90	Jan 1997	1.00	-	Hambros Bank		

BENCHMARK GOVERNMENT BONDS									
	Coupon	Rate	Price	Yield	Week ago	Month ago	Year ago		
Australia	7.500	07/05	95.6500	-0.510	8.16	8.34	8.53		
Austria	6.500	11/05	98.7200	-0.070	6.54	6.69	6.85		
Belgium	6.500	03/05	98.3900	-0.300	6.73	6.71	7.01		
Canada	6.750	12/05	111.2200	-0.350	7.16	7.05	7.25		
Denmark	8.000	03/05	104.7000	-0.640	7.32	7.33	7.88		
France	7.750	04/04	106.2100	-0.710	8.24	8.01	8.71		
Germany Bund	6.750	10/05	105.1900	-0.870	8.87	8.88	7.43		
Italy	6.000	10/05	103.0300	-0.250	8.05	8.23	8.47		
Japan	6.250	10/04	92.4000	-0.258	7.54	7.54	8.10		
Netherlands	10.500	09/05	98.0000	-0.310	11.18	11.14	11.89		
Portugal	6.500	03/04	102.1390	-0.300	1.40	1.32	1.80		
Spain	6.000	09/04	113.4300	-0.410	2.71	2.67	2.78		
Sweden	6.750	11/05	104.7000	-0.680	6.09	6.24	6.53		
Switzerland	11.875	09/05	102.5000	-0.200	10.24	10.28	11.21		
UK Treasury	6.000	10/05	103.0300	-0.250	8.05	8.23	8.47		
US Treasury	6.000	02/05	104.0400	-0.443	8.58	8.74	9.25		
US Treasury	8.000	12/00	104.35	-0.232	6.84	7.01	7.47		
US Treasury	8.500	12/05	107.05	-0.232	7.47	7.63	8.03		
US Treasury	9.000	10/08	111.00	-0.252	7.84	7.77	8.14		
US Treasury	9.875	11/05	101.10	-0.432	5.70	5.80	6.02		
US Treasury	9.875	08/25	111.25	-0.432	6.02	6.25	6.33		
US Treasury	7.500	04/05	102.6900	-0.780	7.08	7.02	7.72		

BOND FUTURES OPTIONS (LFFE) DM250,000 points of 100%									
Strike	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
9850	0.55	0.98	1.20	1.35	0.27	0.80	0.82	1.52	1.78
9900	0.36	0.71	0.93	1.11	0.48	0.63	1.05	1.78	1.78
9950	0.18	0.49	0.70	0.80	0.80	1.11	1.32	2.07	2.07
Est. vol. total, Calls 2011, Puts 2216. Previous day's open int., Calls 16588, Puts 12748									

FT-ACTUARIES FIXED INTEREST INDICES									
Dec 5	Dec 4	Dec 3	Dec 2	Dec 1	Nov 30	Nov 29	Nov 28	Nov 27	Nov 26
1 Up to 5 years (22)	123.59	-0.02	123.51	2.44	8.72	5 yrs	8.95	6.97	8.56
2 5-15 years (22)	148.88	-0.27	148.59	1.74	11.73	15 yrs	7.68	7.71	8.44
3 Over 15 years (8)	167.81	-0.53	167.28	2.80	12.13	20 yrs	7.74	7.78	8.40
4 Intermediate (5)	191.72	-0.75	191.00	1.19	13.71	Wtd. 1	7.84	7.90	8.47
All stocks (58)	145.15	-0.23	144.91	2.19	11.18				

FT-EDGED ACTIVITY INDICES									
Dec 5	Dec 4	Dec 3	Dec 2	Dec 1	Nov 30	Nov 29	Nov 28	Nov 27	Nov 26
Govt. Secs. (UK)	95.89	95.35	95.45	95.34	91.50	95.99	90.22		
Fixed Interest	114.06	114.07	114.12	113.93	113.92	114.59	108.77		
100% Government Securities High yield	127.01	127.01	127.01	127.01	127.01	127.01	127.01		
26 and Fixed Interest 100% Govt. Secs. (UK)	133.87	133.87	133.87	133.87	133.87	133.87	133.87		

US INTEREST RATES									
Rate	Dec 5	Dec 4	Dec 3	Dec 2	Dec 1	Nov 30	Nov 29	Nov 28	Nov 27
1-month	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
3-month	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
6-month	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
9-month	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91
12-month	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91	5.91

EURO BOND FUTURES (MATT) FF500,000									
Strike	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
110	0.51	1.22	1.43	1.62	0.41	1.12	1.33	2.24	2.24
115	0.25	0.67	0.87	1.06	0.35	0.87	1.08	1.89	1.89
120	0.09	0.35	0.52	0.71	0.25	0.52	0.71	1.23	1.23
Est. vol. total, Calls 3563, Puts 1523. Previous day's open int., Calls 22450, Puts 17233									

FT/FISMA INTERNATIONAL BOND SERVICE									
Issued	Set	Old	Chg.	Yield	Issued	Set	Old	Chg.	Yield
Abney Hill Treasury 5 1/2	1000	99 1/2	99 1/2	5.50	United Kingdom 7 1/2	500	100 1/2	100 1/2	4.12
Abney Hill Treasury 6 1/2	1000	100 1/2	100 1/2	6.13	Wellesley 7 1/2	1000	100 1/2	100 1/2	6.13
Abney Hill Treasury 7 1/2	1000	100 1/2	100 1/2	6.81	World Bank 0 1/2	2000	200 1/2	200 1/2	6.81
Abney Hill Treasury 8 1/2	1000	100 1/2	100 1/2	7.48	World Bank 1 1/2	2000	200 1/2	200 1/2	7.48
Abney Hill Treasury 9 1/2	1000	100 1/2	100 1/2	8.15	World Bank 2 1/2	2000	200 1/2	200 1/2	8.15

CONVERTIBLE BONDS									
Issued	Set	Old	Chg.	Yield	Issued	Set	Old	Chg.	Yield
Abney Hill Treasury 5 1/2	1000	99 1/2	99 1/2	5.50	United Kingdom 7 1/2	500	100 1/2	100 1/2	4.12
Abney Hill Treasury 6 1/2	1000	100 1/2	100 1/2	6.13	Wellesley 7 1/2	1000	100 1/2	100 1/2	6.13
Abney Hill Treasury 7 1/2	1000	100 1/2	100 1/2	6.81	World Bank 0 1/2	2000	200 1/2	200 1/2	6.81

BOND FUTURES AND OPTIONS									
Strike	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
110	0.51	1.22	1.43	1.62	0.41	1.12	1.33	2.24	2.24
115	0.25	0.67	0.87	1.06	0.35	0.87	1.08	1.89	1.89
120	0.09	0.35	0.52	0.71	0.25	0.52	0.71	1.23	1.23
Est. vol. total, Calls 3563, Puts 1523. Previous day's open int., Calls 22450, Puts 17233									

EURO BOND FUTURES (MATT) FF500,000									
Strike	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
110	0.51	1.22	1.43	1.62	0.41	1.12	1.33	2.24	2.24
115	0.25	0.67	0.87	1.06	0.35	0.87	1.08	1.89	1.89
120	0.09	0.35	0.52	0.71	0.25	0.52	0.71	1.23	1.23
Est. vol. total, Calls 3563, Puts 1523. Previous day's open int., Calls 22450, Puts 17233									

Long Dow Jpn 23	500	1004	107 1/2	+0.82	World Bank 03 03	300
Long Power 7/8 98	1000	1054 1/2	+0.82			
Long Dow Jpn 23	500	1004 1/2	+0.82	SWISS FRANK STRAIGHTS		
Long Dow Jpn 23	500	1004 1/2	+0.82	Swiss Franc 0 19	50	
Long Dow Jpn 23	500	1004 1/2	+0.82	Austrian 02 01	100	
Long Dow Jpn 23	500	1004 1/2	+0.82	Canada Europe 04 98	25	
Long Dow Jpn 23	500	1004 1/2	+0.82	Denmark 04 98	25	
Long Dow Jpn 23	500	1004 1/2	+0.82	ESB 10 98	25	
Long Dow Jpn 23	500	1004 1/2	+0.82	Finland 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	France 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Germany 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Italy 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Japan 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Spain 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Sweden 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	Switzerland 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	United Kingdom 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	United States 04 98	30	
Long Dow Jpn 23	500	1004 1/2	+0.82	World Bank 03 03	300	
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Long Dow Jpn						

CURRENCIES AND MONEY

MARKETS REPORT

Franc bounces back as markets back government

By Philip Gawth

The French franc yesterday rallied on the foreign exchanges as markets took a sanguine view of the government's ability to withstand a wave of public sector protest over social security reform.

Investors and traders were impressed by the resolve shown so far by the prime minister, Mr. Alain Juppé, not to bow to the strikers. The franc gained nearly three centimes on the day, to finish in London at FF4.454 against the D-Mark, from FF4.451 on Monday.

With the franc making good gains, the D-Mark was generally weaker across the board in Europe. It was stronger against the yen, which closed at ¥168.8, from ¥170.25.

The dollar was also unable to make headway against the D-Mark, finishing at DM1.4363, from DM1.4361. It was slightly firmer against the yen, at ¥101.425 from ¥101.03.

Sterling had a good day,

making gains against both the dollar and D-Mark. It closed at \$1.5405, from \$1.5394, and at DM2.2125, from DM2.2121. The trade weighted index finished at 82.6, from 82.5.

Trade remains generally very quiet, with the dollar still range-bound, and liquidity poor. Many fund managers appear to have taken to the sidelines ahead of the end of the year, unwilling to compromise good performances by taking on unnecessary currency risk now.

The havoc caused by the pre-emptive fall of the Mexican peso in the final days of last year is still fresh in the minds of many investors.

The franc's rally was the main focus of attention. Mr. Juppé's resolve to withstand the strikers was a key factor.

Comments from some senior Bundesbank officials helped return attention to the outlook for German interest rates. Mr.



Franc/D-Mark exchange rate

rate only has limited scope to fall today, if it prompts caution.

Mr. Juppé, who is head of the Bavarian central bank, also said that he did not see any danger of D-Mark appreciation.

"The dollar has gained ground on the basis of better US fundamental data," he said.

Speaking in London, Mr. Hans-Juergen Koebnick, another Bundesbank council member, predicted that interest rates would move sideways or down - but not up.

The dollar did not manage to rally on any of these comments, suggesting that it is likely to stay in its current tight range at least until there is some sort of budget deal.

The release today of the Budget book ahead of the December 19 FOMC meeting is also unlikely to support the dollar.

Mr. Brian Martin, economist at Barclays Bank in London, said it would probably show inflation under control, output growth on a weakening

trend, and consumer spending under some pressure.

All of this will favour lower interest rates, which could fuel a further leg in the bond and equity market rallies. But if these continue to be domestically driven, the dollar will remain unaffected.

The Swedish krona finished the day slightly firmer despite the announcement by Mr. Göran Persson, the finance minister, that he would definitely not consider running for prime minister. He has been widely tipped to take over the job next March from the incumbent, Mr. Ingvar Carlsson.

The krona closed at SKr4.552 against the D-Mark, from SKr4.571.

Other currencies: The Japanese yen finished the day slightly weaker, at ¥101.425 from ¥101.03.

The British pound finished the day slightly stronger, at £1.5405 from £1.5394.

The Australian dollar finished the day slightly weaker, at A\$0.68 from A\$0.67.

POUND SPOT FORWARD AGAINST THE DOLLAR

Dec 5	Closing	Change	Dec 5	Closing	Change	Dec 5	Closing	Change	Dec 5	Closing	Change
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Europe	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
Australia	0.67	-0.0001	0.67	0.67	-0.0001	0.67	0.67	-0.0001	0.67	0.67	-0.0001
Canada	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001
France	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Germany	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Italy	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Japan	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001
Netherlands	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001
Spain	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001
Sweden	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001
Switzerland	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001
UK	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
USA	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
Other	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001

DOLLAR SPOT FORWARD AGAINST THE DOLLAR

Dec 5	Closing	Change	Dec 5	Closing	Change	Dec 5	Closing	Change	Dec 5	Closing	Change
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Europe	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
Australia	0.67	-0.0001	0.67	0.67	-0.0001	0.67	0.67	-0.0001	0.67	0.67	-0.0001
Canada	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001
France	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Germany	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Italy	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Japan	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001
Netherlands	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001
Spain	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001
Sweden	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001
Switzerland	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001
UK	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
USA	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
Other	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001

CROSS RATES AND DERIVATIVES

Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Belgium	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Canada	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001
France	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Germany	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Italy	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Japan	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001
Netherlands	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001
Spain	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001
Sweden	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001
Switzerland	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001
UK	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
USA	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
Other	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001

UK INTEREST RATES

Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Bank of England	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Three month	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Six month	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
One year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Two year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Three year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Five year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Seven year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Ten year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Other	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001

BASE LENDING RATES

Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Bank of England	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Three month	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Six month	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
One year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Two year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Three year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Five year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Seven year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Ten year	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001
Other	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001	5.5	5.5	-0.0001

EUROPEAN CURRENCY UNIT RATES

Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5	Dec 5
Belgium	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Canada	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001	0.75	0.75	-0.0001
France	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Germany	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001	4.45	4.45	-0.0001
Italy	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001	1.36	1.36	-0.0001
Japan	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001	101.03	101.03	-0.0001
Netherlands	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001	2.21	2.21	-0.0001
Spain	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001	168.8	168.8	-0.0001
Sweden	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001	4.55	4.55	-0.0001
Switzerland	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001	1.43	1.43	-0.0001
UK	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001
USA	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-0.0001	1.5405	1.5394	-

INVESTMENT TRUSTS - Cont.[illegible]

Warrant	21	11	11	72	14	84.8	5
Heavy Equip License - 1st	21	11	11	18	14	84.8	5
Motor Vehicle	21	11	11	18	14	84.8	5

Germany	178	120	101	94	85	76	67	58	49	40	31	22	13	4	-5	-14	-23	-32	-41	-50	-59	-68	-77	-86	-95	-104	-113	-122	-131	-140	-149	-158	-167	-176	-185	-194	-203	-212	-221	-230	-239	-248	-257	-266	-275	-284	-293	-302	-311	-320	-329	-338	-347	-356	-365	-374	-383	-392	-401	-410	-419	-428	-437	-446	-455	-464	-473	-482	-491	-500	-509	-518	-527	-536	-545	-554	-563	-572	-581	-590	-599	-608	-617	-626	-635	-644	-653	-662	-671	-680	-689	-698	-707	-716	-725	-734	-743	-752	-761	-770	-779	-788	-797	-806	-815	-824	-833	-842	-851	-860	-869	-878	-887	-896	-905	-914	-923	-932	-941	-950	-959	-968	-977	-986	-995	-1004	-1013	-1022	-1031	-1040	-1049	-1058	-1067	-1076	-1085	-1094	-1103	-1112	-1121	-1130	-1139	-1148	-1157	-1166	-1175	-1184	-1193	-1202	-1211	-1220	-1229	-1238	-1247	-1256	-1265	-1274	-1283	-1292	-1301	-1310	-1319	-1328	-1337	-1346	-1355	-1364	-1373	-1382	-1391	-1400	-1409	-1418	-1427	-1436	-1445	-1454	-1463	-1472	-1481	-1490	-1499	-1508	-1517	-1526	-1535	-1544	-1553	-1562	-1571	-1580	-1589	-1598	-1607	-1616	-1625	-1634	-1643	-1652	-1661	-1670	-1679	-1688	-1697	-1706	-1715	-1724	-1733	-1742	-1751	-1760	-1769	-1778	-1787	-1796	-1805	-1814	-1823	-1832	-1841	-1850	-1859	-1868	-1877	-1886	-1895	-1904	-1913	-1922	-1931	-1940	-1949	-1958	-1967	-1976	-1985	-1994	-2003	-2012	-2021	-2030	-2039	-2048	-2057	-2066	-2075	-2084	-2093	-2102	-2111	-2120	-2129	-2138	-2147	-2156	-2165	-2174	-2183	-2192	-2201	-2210	-2219	-2228	-2237	-2246	-2255	-2264	-2273	-2282	-2291	-2300	-2309	-2318	-2327	-2336	-2345	-2354	-2363	-2372	-2381	-2390	-2399	-2408	-2417	-2426	-2435	-2444	-2453	-2462	-2471	-2480	-2489	-2498	-2507	-2516	-2525	-2534	-2543	-2552	-2561	-2570	-2579	-2588	-2597	-2606	-2615	-2624	-2633	-2642	-2651	-2660	-2669	-2678	-2687	-2696	-2705	-2714	-2723	-2732	-2741	-2750	-2759	-2768	-2777	-2786	-2795	-2804	-2813	-2822	-2831	-2840	-2849	-2858	-2867	-2876	-2885	-2894	-2903	-2912	-2921	-2930	-2939	-2948	-2957	-2966	-2975	-2984	-2993	-3002	-3011	-3020	-3029	-3038	-3047	-3056	-3065	-3074	-3083	-3092	-3101	-3110	-3119	-3128	-3137	-3146	-3155	-3164	-3173	-3182	-3191	-3200	-3209	-3218	-3227	-3236	-3245	-3254	-3263	-3272	-3281	-3290	-3299	-3308	-3317	-3326	-3335	-3344	-3353	-3362	-3371	-3380	-3389	-3398	-3407	-3416	-3425	-3434	-3443	-3452	-3461	-3470	-3479	-3488	-3497	-3506	-3515	-3524	-3533	-3542	-3551	-3560	-3569	-3578	-3587	-3596	-3605	-3614	-3623	-3632	-3641	-3650	-3659	-3668	-3677	-3686	-3695	-3704	-3713	-3722	-3731	-3740	-3749	-3758	-3767	-3776	-3785	-3794	-3803	-3812	-3821	-3830	-3839	-3848	-3857	-3866	-3875	-3884	-3893	-3902	-3911	-3920	-3929	-3938	-3947	-3956	-3965	-3974	-3983	-3992	-4001	-4010	-4019	-4028	-4037	-4046	-4055	-4064	-4073	-4082	-4091	-4100	-4109	-4118	-4127	-4136	-4145	-4154	-4163	-4172	-4181	-4190	-4199	-4208	-4217	-4226	-4235	-4244	-4253	-4262	-4271	-4280	-4289	-4298	-4307	-4316	-4325	-4334	-4343	-4352	-4361	-4370	-4379	-4388	-4397	-4406	-4415	-4424	-4433	-4442	-4451	-4460	-4469	-4478	-4487	-4496	-4505	-4514	-4523	-4532	-4541	-4550	-4559	-4568	-4577	-4586	-4595	-4604	-4613	-4622	-4631	-4640	-4649	-4658	-4667	-4676	-4685	-4694	-4703	-4712	-4721	-4730	-4739	-4748	-4757	-4766	-4775	-4784	-4793	-4802	-4811	-4820	-4829	-4838	-4847	-4856	-4865	-4874	-4883	-4892	-4901	-4910	-4919	-4928	-4937	-4946	-4955	-4964	-4973	-4982	-4991	-5000	-5009	-5018	-5027	-5036	-5045	-5054	-5063	-5072	-5081	-5090	-5099	-5108	-5117	-5126	-5135	-5144	-5153	-5162	-5171	-5180	-5189	-5198	-5207	-5216	-5225	-5234	-5243	-5252	-5261	-5270	-5279	-5288	-5297	-5306	-5315	-5324	-5333	-5342	-5351	-5360	-5369	-5378	-5387	-5396	-5405	-5414	-5423	-5432	-5441	-5450	-5459	-5468	-5477	-5486	-5495	-5504	-5513	-5522	-5531	-5540	-5549	-5558	-5567	-5576	-5585	-5594	-5603	-5612	-5621	-5630	-5639	-5648	-5657	-5666	-5675	-5684	-5693	-5702	-5711	-5720	-5729	-5738	-5747	-5756	-5765	-5774	-5783	-5792	-5801	-5810	-5819	-5828	-5837	-5846	-5855	-5864	-5873	-5882	-5891	-5900	-5909	-5918	-5927	-5936	-5945	-5954	-5963	-5972	-5981	-5990	-6000	-6009	-6018	-6027	-6036	-6045	-6054	-6063	-6072	-6081	-6090	-6099	-6108	-6117	-6126	-6135	-6144	-6153	-6162	-6171	-6180	-6189	-6198	-6207	-6216	-6225	-6234	-6243	-6252	-6261	-6270	-6279	-6288	-6297	-6306	-6315	-6324	-6333	-6342	-6351	-6360	-6369	-6378	-6387	-6396	-6405	-6414	-6423	-6432	-6441	-6450	-6459	-6468	-6477	-6486	-6495	-6504	-6513	-6522	-6531	-6540	-6549	-6558	-6567	-6576	-6585	-6594	-6603	-6612	-6621	-6630	-6639	-6648	-6657	-6666	-6675	-6684	-6693	-6702	-6711	-6720	-6729	-6738	-6747	-6756	-6765	-6774	-6783	-6792	-6801	-6810	-6819	-6828	-6837	-6846	-6855	-6864	-6873	-6882	-6891	-6900	-6909	-6918	-6927	-6936	-6945	-6954	-6963	-6972	-6981	-6990	-7000	-7009	-7018	-7027	-7036	-7045	-7054	-7063	-7072	-7081	-7090	-7099	-7108	-7117	-7126	-7135	-7144	-7153	-7162	-7171	-7180	-7189	-7198	-7207	-7216	-7225	-7234	-7243	-7252	-7261	-7270	-7279	-7288	-7297	-7306	-7315	-7324	-7333	-7342	-7351	-7360	-7369	-7378	-7387	-7396	-7405	-7414	-7423	-7432	-7441	-7450	-7459	-7468	-7477	-7486	-7495	-7504	-7513	-7522	-7531	-7540	-7549	-7558	-7567	-7576	-7585	-7594	-7603	-7612	-7621	-7630	-7639	-7648	-7657	-7666	-7675	-7684	-7693	-7702	-7711	-7720	-7729	-7738	-7747	-7756	-7765	-7774	-7783	-7792	-7801	-7810	-7819	-7828	-7837	-7846	-7855	-7864	-7873	-7882	-7891	-7900	-7909	-7918	-7927	-7936	-7945	-7954	-7963	-7972	-7981	-7990	-8000	-8009	-8018	-8027	-8036	-8045	-8054	-8063	-8072	-8081	-8090	-8099	-8108	-8117	-8126	-8135	-8144	-8153	-8162	-8171	-8180	-8189	-8198	-8207	-8216	-8225	-8234	-8243	-8252	-8261	-8270	-8279	-8288	-8297	-8306	-8315	-8324	-8333	-8342	-8351	-8360	-8369	-8378	-8387	-8396	-8405	-8414	-8423	-8432	-8441	-8450	-8459	-8468	-8477	-8486	-8495	-8504	-8513	-8522	-8531	-8540	-8549	-8558	-8567	-8576	-8585	-8594	-8603	-8612	-8621	-8630	-8639	-8648	-8657	-8666	-8675	-8684	-8693	-8702	-8711	-8720	-8729	-8738	-8747	-8756	-8765	-8774	-8783	-8792	-8801	-8810	-8819	-8828	-8837	-8846	-8855	-8864	-8873	-8882	-8891	-8900	-8909	-8918	-8927	-8936	-8945	-8954	-8963	-8972	-8981	-8990	-9000	-9009	-9018	-9027	-9036	-9045	-9054	-9063	-9072	-9081	-9090	-9099	-9108	-9117	-9126	-9135	-9144	-9153	-9162	-9171	-9180	-9189	-9198	-9207	-9216	-9225	-9234	-9243	-9252	-9261	-9270	-9279	-9288	-9297	-9306	-9315	-9324	-9333	-9342	-9351	-9360	-9369	-9378	-9387	-9396	-9405	-9414	-9423	-9432	-9441	-9450	-9459	-9468	-9477	-9486	-9495	-9504	-9513	-9522	-9531	-9540	-9549	-9558	-9567	-9576	-9585	-9594	-9603	-9612	-9621	-9630	-9639	-9648	-9657	-9666	-9675	-9684	-9693	-9702	-9711	-9720	-9729	-9738	-9747	-9756	-9765	-9774	-9783	-9792	-9801	-9810	-9819	-9828	-9837	-9846	-9855	-9864	-9873	-9882	-9891	-9900	-9909	-9918	-9927	-9936	-9945	-9954	-9963	-9972	-9981	-9990	-10000
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Murray State in 1991	428	-1	483	379	-	-	-
B	336	-1	327	302	4.1	419.2	12.5

[illegible]

	Warrants	\$976	\$890	\$954	=	-	-
	Panthers French	128	136	138	7.0	144.5	73.1
					=	83.7	-1.4

[illegible]

Not asset values supplied by MidWest Securities Limited as a guide only. See guide to London Share Service

[illegible]

Income	96	+1	116	-	250.4	62.9
Zero Div P1	1682	+1	1683	17.5	-	-

[illegible]

هكذا من الاصل

LIFE ASSURANCE

OTHER SERVICES & BUSINESSES

PROPERTY - Cont.

SUPPORT RESOURCES - Cont.

AME - Cont

[illegible][illegible]

OIL EXPLORATION & PRODUCTION

SOUTH A

Anglo Am Ind
Baker
Bd Pds Prop R
BIO
SASO
SA Steel
SAI
Soc Sec Bank
Tenn-Corp
Trans-Corp
Tupper-Valley

GUIDE TO

Prices for the Los Angeles Times
Company classified
States indicated

Choking out prices
are based on

Where stocks are
indicated after the

Symbols referring
prices to yields are
on following

Market capitalization
percent.

Earnings used is

Price/earnings ratio
where possible, an

Yields are based on
of 20 per cent ann

Estimated Net Assets
per share, with
(\$10 = 1) the net
Change all per val

☐ Indicates the
Stock Exchange

TOBACCO

Percentage of population who are smokers

Africa: Algeria, Angola, Botswana, Burkina Faso, Burundi, Cameroon, Chad, Congo, Cote d'Ivoire, Egypt, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea-Bissau, Kenya, Lesotho, Liberia, Madagascar, Mali, Mauritania, Mauritius, Morocco, Mozambique, Niger, Nigeria, Rwanda, Senegal, Sierra Leone, Somalia, South Africa, South Sudan, Sudan, Swaziland, Tanzania, Togo, Tunisia, Uganda, Zambia, Zimbabwe.

Asia: Afghanistan, Bangladesh, Bhutan, Brunei, Cambodia, China, Hong Kong, India, Indonesia, Japan, Korea, Laos, Malaysia, Mongolia, Myanmar, Nepal, Pakistan, Philippines, Singapore, Sri Lanka, Taiwan, Thailand, Timor, Vietnam, West Bank, Yemen.

Europe: Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Russia, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Turkey, Ukraine, United Kingdom, Uzbekistan.

North America: Argentina, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Uruguay, Venezuela.

Oceania: Australia, New Zealand.

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[illegible]**RETAILERS, GENERAL - Cont.**

	Price	+B	\$2
300 Tenders	120	120	120
300 2nd Dr Cr V	120	120	120
300 3rd Dr Cr V	120	120	120
300 4th Dr Cr V	120	120	120
300 5th Dr Cr V	120	120	120
300 6th Dr Cr V	120	120	120
300 7th Dr Cr V	120	120	120
300 8th Dr Cr V	120	120	120
300 9th Dr Cr V	120	120	120
300 10th Dr Cr V	120	120	120
300 11th Dr Cr V	120	120	120
300 12th Dr Cr V	120	120	120
300 13th Dr Cr V	120	120	120
300 14th Dr Cr V	120	120	120
300 15th Dr Cr V	120	120	120
300 16th Dr Cr V	120	120	120
300 17th Dr Cr V	120	120	120
300 18th Dr Cr V	120	120	120
300 19th Dr Cr V	120	120	120
300 20th Dr Cr V	120	120	120
300 21st Dr Cr V	120	120	120
300 22nd Dr Cr V	120	120	120
300 23rd Dr Cr V	120	120	120
300 24th Dr Cr V	120	120	120
300 25th Dr Cr V	120	120	120
300 26th Dr Cr V	120	120	120
300 27th Dr Cr V	120	120	120
300 28th Dr Cr V	120	120	120
300 29th Dr Cr V	120	120	120
300 30th Dr Cr V	120	120	120
300 31st Dr Cr V	120	120	120
300 32nd Dr Cr V	120	120	120
300 33rd Dr Cr V	120	120	120
300 34th Dr Cr V	120	120	120
300 35th Dr Cr V	120	120	120
300 36th Dr Cr V	120	120	120
300 37th Dr Cr V	120	120	120
300 38th Dr Cr V	120	120	120
300 39th Dr Cr V	120	120	120
300 40th Dr Cr V	120	120	120
300 41st Dr Cr V	120	120	120
300 42nd Dr Cr V	120	120	120
300 43rd Dr Cr V	120	120	120
300 44th Dr Cr V	120	120	120
300 45th Dr Cr V	120	120	120
300 46th Dr Cr V	120	120	120
300 47th Dr Cr V	120	120	120
300 48th Dr Cr V	120	120	120
300 49th Dr Cr V	120	120	120
300 50th Dr Cr V	120	120	120
300 51st Dr Cr V	120	120	120
300 52nd Dr Cr V	120	120	120
300 53rd Dr Cr V	120	120	120
300 54th Dr Cr V	120	120	120
300 55th Dr Cr V	120	120	120
300 56th Dr Cr V	120	120	120
300 57th Dr Cr V	120	120	120
300 58th Dr Cr V	120	120	120
300 59th Dr Cr V	120	120	120
300 60th Dr Cr V	120	120	120
300 61st Dr Cr V	120	120	120
300 62nd Dr Cr V	120	120	120
300 63rd Dr Cr V	120	120	120
300 64th Dr Cr V	120	120	120
300 65th Dr Cr V	120	120	120
300 66th Dr Cr V	120	120	120
300 67th Dr Cr V	120	120	120
300 68th Dr Cr V	120	120	120
300 69th Dr Cr V	120	120	120
300 70th Dr Cr V	120	120	120
300 71st Dr Cr V	120	120	120
300 72nd Dr Cr V	120	120	120
300 73rd Dr Cr V	120	120	120
300 74th Dr Cr V	120	120	120
300 75th Dr Cr V	120	120	120
300 76th Dr Cr V	120	120	120
300 77th Dr Cr V	120	120	120
300 78th Dr Cr V	120	120	120
300 79th Dr Cr V	120	120	120
300 80th Dr Cr V	120	120	120
300 81st Dr Cr V	120	120	120
300 8			

PROPERTY

[illegible]

French Connect	129	129	129
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[illegible]

TRANSPORT

[illegible]

WATER

Region	Index	Price	52 Wk
Alaska	201.1	104.00	103.1
Arizona	201.1	1.00	1.00
Arkansas	201.1	1.00	1.00
California	201.1	1.00	1.00
Colorado	201.1	1.00	1.00
Connecticut	201.1	1.00	1.00
Delaware	201.1	1.00	1.00
District of Columbia	201.1	1.00	1.00
Florida	201.1	1.00	1.00
Georgia	201.1	1.00	1.00
Hawaii	201.1	1.00	1.00
Idaho	201.1	1.00	1.00
Illinois	201.1	1.00	1.00
Indiana	201.1	1.00	1.00
Iowa	201.1	1.00	1.00
Kansas	201.1	1.00	1.00
Kentucky	201.1	1.00	1.00
Louisiana	201.1	1.00	1.00
Maine	201.1	1.00	1.00
Maryland	201.1	1.00	1.00
Massachusetts	201.1	1.00	1.00
Michigan	201.1	1.00	1.00
Minnesota	201.1	1.00	1.00
Mississippi	201.1	1.00	1.00
Missouri	201.1	1.00	1.00
Montana	201.1	1.00	1.00
Nebraska	201.1	1.00	1.00
Nevada	201.1	1.00	1.00
New Hampshire	201.1	1.00	1.00
New Jersey	201.1	1.00	1.00
New Mexico	201.1	1.00	1.00
New York	201.1	1.00	1.00
North Carolina	201.1	1.00	1.00
North Dakota	201.1	1.00	1.00
Ohio	201.1	1.00	1.00
Oklahoma	201.1	1.00	1.00
Oregon	201.1	1.00	1.00
Pennsylvania	201.1	1.00	1.00
Rhode Island	201.1	1.00	1.00
South Carolina	201.1	1.00	1.00
South Dakota	201.1	1.00	1.00
Tennessee	201.1	1.00	1.00
Texas	201.1	1.00	1.00
Utah	201.1	1.00	1.00
Vermont	201.1	1.00	1.00
Virginia	201.1	1.00	1.00
Washington	201.1	1.00	1.00
West Virginia	201.1	1.00	1.00
Wisconsin	201.1	1.00	1.00
Wyoming	201.1	1.00	1.00

SPIRITS, WINES & CIDERS

	Price	High	Low
Med Domestic Airfare	143	143	143
Med Int'l Airfare	143	143	143
Med Hotel	143	143	143
Med Restaurant	143	143	143
Med Taxi	143	143	143
Med Car Rental	143	143	143
Med Insurance	143	143	143
Med Security	143	143	143
Med Cleaning	143	143	143
Med Maintenance	143	143	143
Med Repairs	143	143	143
Med Supplies	143	143	143
Med Tools	143	143	143
Med Equipment	143	143	143
Med Furniture	143	143	143
Med Appliances	143	143	143
Med Electronics	143	143	143
Med Office Supplies	143	143	143
Med Stationery	143	143	143
Med Printing	143	143	143
Med Shipping	143	143	143
Med Packaging	143	143	143
Med Warehousing	143	143	143
Med Distribution	143	143	143
Med Sales	143	143	143
Med Marketing	143	143	143
Med Advertising	143	143	143
Med Public Relations	143	143	143
Med Consulting	143	143	143
Med Training	143	143	143
Med Development	143	143	143
Med Research	143	143	143
Med Analysis	143	143	143
Med Design	143	143	143
Med Architecture	143	143	143
Med Engineering	143	143	143
Med Law	143	143	143
Med Accounting	143	143	143
Med Finance	143	143	143
Med Insurance	143	143	143
Med Real Estate	143	143	143
Med Transportation	143	143	143
Med Utilities	143	143	143
Med Telecommunications	143	143	143
Med Information Technology	143	143	143
Med Environmental	143	143	143
Med Health	143	143	143
Med Education	143	143	143
Med Culture	143	143	143
Med Arts	143	143	143
Med Entertainment	143	143	143
Med Sports	143	143	143
Med Recreation	143	143	143
Med Leisure	143	143	143
Med Travel	143	143	143
Med Hospitality	143	143	143
Med Food	143	143	143
Med Beverage	143	143	143
Med Retail	143	143	143
Med Wholesale	143	143	143
Med Manufacturing	143	143	143
Med Construction	143	143	143
Med Energy	143	143	143
Med Materials	143	143	143
Med Chemicals	143	143	143
Med Pharmaceuticals	143	143	143
Med Biotechnology	143	143	143
Med Aerospace	143	143	143
Med Defense	143	143	143
Med Government	143	143	143
Med Non-Profit	143	143	143
Med Religion	143	143	143
Med Science	143	143	143
Med History	143	143	143
Med Geography	143	143	143
Med Social Sciences	143	143	143
Med Humanities	143	143	143
Med Languages	143	143	143
Med Literature	143	143	143
Med Music	143	143	143
Med Visual Arts	143	143	143
Med Performing Arts	143	143	143
Med Media	143	143	143
Med Journalism	143	143	143
Med Communications	143	143	143
Med Public Administration	143	143	143
Med Law Enforcement	143	143	143
Med Corrections	143	143	143
Med Social Work	143	143	143
Med Counseling	143	143	143
Med Psychology	143	143	143
Med Sociology	143	143	143
Med Anthropology	143	143	143
Med Archaeology	143	143	143
Med Paleontology	143	143	143
Med Botany	143	143	143

SUPPORT SERVICES

Rank	Name	Rank	Name	Rank	Name	Rank	Name
1	1st Lt. J. A. Smith	1	1st Lt. J. A. Smith	1	1st Lt. J. A. Smith	1	1st Lt. J. A. Smith
2	2nd Lt. J. B. Jones	2	2nd Lt. J. B. Jones	2	2nd Lt. J. B. Jones	2	2nd Lt. J. B. Jones
3	3rd Lt. J. C. Brown	3	3rd Lt. J. C. Brown	3	3rd Lt. J. C. Brown	3	3rd Lt. J. C. Brown
4	4th Lt. J. D. White	4	4th Lt. J. D. White	4	4th Lt. J. D. White	4	4th Lt. J. D. White
5	5th Lt. J. E. Black	5	5th Lt. J. E. Black	5	5th Lt. J. E. Black	5	5th Lt. J. E. Black
6	6th Lt. J. F. Green	6	6th Lt. J. F. Green	6	6th Lt. J. F. Green	6	6th Lt. J. F. Green
7	7th Lt. J. G. Hall	7	7th Lt. J. G. Hall	7	7th Lt. J. G. Hall	7	7th Lt. J. G. Hall
8	8th Lt. J. H. King	8	8th Lt. J. H. King	8	8th Lt. J. H. King	8	8th Lt. J. H. King
9	9th Lt. J. I. Lee	9	9th Lt. J. I. Lee	9	9th Lt. J. I. Lee	9	9th Lt. J. I. Lee
10	10th Lt. J. J. Scott	10	10th Lt. J. J. Scott	10	10th Lt. J. J. Scott	10	10th Lt. J. J. Scott
11	11th Lt. J. K. Adams	11	11th Lt. J. K. Adams	11	11th Lt. J. K. Adams	11	11th Lt. J. K. Adams
12	12th Lt. J. L. Baker	12	12th Lt. J. L. Baker	12	12th Lt. J. L. Baker	12	12th Lt. J. L. Baker
13	13th Lt. J. M. Carter	13	13th Lt. J. M. Carter	13	13th Lt. J. M. Carter	13	13th Lt. J. M. Carter
14	14th Lt. J. N. Evans	14	14th Lt. J. N. Evans	14	14th Lt. J. N. Evans	14	14th Lt. J. N. Evans
15	15th Lt. J. O. Fisher	15	15th Lt. J. O. Fisher	15	15th Lt. J. O. Fisher	15	15th Lt. J. O. Fisher
16	16th Lt. J. P. Gibson	16	16th Lt. J. P. Gibson	16	16th Lt. J. P. Gibson	16	16th Lt. J. P. Gibson
17	17th Lt. J. Q. Harris	17	17th Lt. J. Q. Harris	17	17th Lt. J. Q. Harris	17	17th Lt. J. Q. Harris
18	18th Lt. J. R. Howard	18	18th Lt. J. R. Howard	18	18th Lt. J. R. Howard	18	18th Lt. J. R. Howard
19	19th Lt. J. S. Ingram	19	19th Lt. J. S. Ingram	19	19th Lt. J. S. Ingram	19	19th Lt. J. S. Ingram
20	20th Lt. J. T. Jackson	20	20th Lt. J. T. Jackson	20	20th Lt. J. T. Jackson	20	20th Lt. J. T. Jackson
21	21st Lt. J. U. Kelly	21	21st Lt. J. U. Kelly	21	21st Lt. J. U. Kelly	21	21st Lt. J. U. Kelly
22	22nd Lt. J. V. Lester	22	22nd Lt. J. V. Lester	22	22nd Lt. J. V. Lester	22	22nd Lt. J. V. Lester
23	23rd Lt. J. W. Martin	23	23rd Lt. J. W. Martin	23	23rd Lt. J. W. Martin	23	23rd Lt. J. W. Martin
24	24th Lt. J. X. Nelson	24	24th Lt. J. X. Nelson	24	24th Lt. J. X. Nelson	24	24th Lt. J. X. Nelson
25	25th Lt. J. Y. Oliver	25	25th Lt. J. Y. Oliver	25	25th Lt. J. Y. Oliver	25	25th Lt. J. Y. Oliver
26	26th Lt. J. Z. Parker	26	26th Lt. J. Z. Parker	26	26th Lt. J. Z. Parker	26	26th Lt. J. Z. Parker
27	27th Lt. J. A. Quinn	27	27th Lt. J. A. Quinn	27	27th Lt. J. A. Quinn	27	27th Lt. J. A. Quinn
28	28th Lt. J. B. Reed	28	28th Lt. J. B. Reed	28	28th Lt. J. B. Reed	28	28th Lt. J. B. Reed
29	29th Lt. J. C. Shaw	29	29th Lt. J. C. Shaw	29	29th Lt. J. C. Shaw	29	29th Lt. J. C. Shaw
30	30th Lt. J. D. Taylor	30	30th Lt. J. D. Taylor	30	30th Lt. J. D. Taylor	30	30th Lt. J. D. Taylor
31	31st Lt. J. E. Vance	31	31st Lt. J. E. Vance	31	31st Lt. J. E. Vance	31	31st Lt. J. E. Vance
32	32nd Lt. J. F. Webb	32	32nd Lt. J. F. Webb	32	32nd Lt. J. F. Webb	32	32nd Lt. J. F. Webb
33	33rd Lt. J. G. Wright	33	33rd Lt. J. G. Wright	33	33rd Lt. J. G. Wright	33	33rd Lt. J. G. Wright
34	34th Lt. J. H. Young	34	34th Lt. J. H. Young	34	34th Lt. J. H. Young	34	34th Lt. J. H. Young
35	35th Lt. J. I. Allen	35	35th Lt. J. I. Allen	35	35th Lt. J. I. Allen	35	35th Lt. J. I. Allen
36	36th Lt. J. J. King	36	36th Lt. J. J. King	36	36th Lt. J. J. King	36	36th Lt. J. J. King
37	37th Lt. J. K. Scott	37	37th Lt. J. K. Scott	37	37th Lt. J. K. Scott	37	37th Lt. J. K. Scott
38	38th Lt. J. L. Adams	38	38th Lt. J. L. Adams	38	38th Lt. J. L. Adams	38	38th Lt. J. L. Adams
39	39th Lt. J. M. Baker	39	39th Lt. J. M. Baker	39	39th Lt. J. M. Baker	39	39th Lt. J. M. Baker
40	40th Lt. J. N. Carter	40	40th Lt. J. N. Carter	40	40th Lt. J. N. Carter	40	40th Lt. J. N. Carter

GUIDE TO LONDON SHARE SERVICE

Prices for the London Share Store Securities delivered by FT Global, a member of the Financial Times Group.

Company disclosures are based on those used for the FT-SE Actuaries.

Dividend and prices are shown in pence unless otherwise stated. High and low are based on intra-day net prices over a rolling 52 week period.

Where shares are denominated in currencies other than sterling, this is indicated after the name.

Symbols referring to dividend status appear in the notes column only as a guide to yields and P/E ratios. Dividends and Dividend covers are published on Money.

Market capitalisation shown is calculated separately for each line of stock owned.

Price-earnings ratios are based on latest annual reports and accounts and, where possible, are updated on interim figures.

Yields are based on mid-prices, are gross, adjusted for a dividend tax credit of 20 per cent and allow for value of declared distribution and rights.

□ Indicate the most actively traded stocks. This excludes UK stocks where transactions and prices are published continuously through Stock Exchange Automated Quotation system (SEAI) and Jea-UK.

[illegible]

* Unregulated collective investment schemes.

<p>3 Guaranteed dividend 4 Figure based on prospectus or other official statement. 5 Assumed dividend yield after rights issue. 6 Assumed dividend yield after scrip issue. 7 Rights issue pending. 8 Figure based on</p>	<p>2 Dividend yield calcu- lated as a special payment F Yield based on prospectus or other official statement for 1994-95. 9 Assumed yield after pending scrip under rights issue. 10 Yield based on</p>	<p>11 Forecast average yield, pre based on prospectus or other official statement. 12 Pre Rights figure. 13 Dividend yield at date</p>
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prospectus or other official statement for 1985.

1. **Yield:**
 1. Estimated earnings
 yield, plus 10% based on
 latest annual earnings
 2. Forecast, or estimated
 distribution
 3. Yield, plus based on
 previous year's earnings
 4. Pro ratios
 5. Official order size

2. **Yield based on**
 prospectus or other
 official estimates for
 1994

3. **Estimated annualized**
 yield, plus based on
 previous year's earnings
 4. **Yield based on**
 prospectus or other
 official estimates for

Abbreviations:
 1. **on** = domestic
 2. **on** = GFC (GFC
 = 1994)
 3. **on** =
 4. **on** = capital structure

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LONDON STOCK EXCHANGE

MARKET REPORT

Wall Street strength lifts Footsie off its lows

By Philip Coggan, Markets Editor

Another strong performance from Wall Street helped London shares recover from a bout of indigestion yesterday, as the market absorbed the \$518m placing of the government's remaining stake in British Petroleum.

Footsie was 18.3 lower at 3,651.4. But Wall Street, after opening slightly weaker, quickly powered ahead and by the close of London trading the Dow Jones Industrial Average was 32 points higher. With gilts around a third of a point stronger, and sterling also recovering against a weaker D-Mark, the Footsie was able to rally to end just 5.5 points off at 3,666.4.

The FT-SE 100 index finished marginally ahead on the day, up 0.2 at 3,983.3, with the help of strong performances from Trafalgar House and Eurotunnel.

The FTSE started strongly on the back of yet another record Wall Street close, reaching an intra-day all-time peak of 3,693.6, up 13.9, a few minutes after the opening. But the gains were quickly eroded as the market absorbed the effect of the BTR profits warning and the attempt by SBC Warburg to place the BP stake. Together the falls in BP and BTR had the effect of knocking 8 points off the leading index.

SBC Warburg succeeded in placing the stock, after some initial difficulty, with US investors reported to be supportive. BTR's downbeat statement, while not cataclysmic, was the latest in a series of profits warnings from substantial companies in recent weeks.

In spite of investor fears of a slowdown in earnings growth, the stock market has forged ahead with the help of a strong international background, buoyant institutional liquidity and hopes of interest rate reductions.

The market is looking for a cut after the next meeting between Mr Kenneth Clarke, the chancellor, and Mr Eddie George, the governor of the Bank of England, on December 13. But yesterday, Mr Alan Budd, the Treasury's chief economic adviser, said that a 3 per cent economic growth could be achieved in 1996 without a cut in base rates.

US push for Unilever

Unilever, the international food and soap powder giant, put on a whiter-than-white performance after Goldman Sachs brightened its outlook for the company.

Shares in the Anglo-Dutch company, which benefited less than a month ago from corporate figures at the top of analysts' forecasts, shot forward 38 to 2,329p, a new closing high.

Goldman has turned more positive on the group and included it in its list of most heavily tipped US and European stocks. The US broker has focused on three potential plus points.

First, it believes that fourth quarter growth will be sluggish but earnings will accelerate in 1996 while the rest of the UK economy will slow down.

Secondly, it has pointed out that Mr Niall Fitzgerald, the UK chairman-elect would be carrying out an organisational review next year and would be expected to simplify the company's complex executive hierarchy.

Finally, Goldman argues that the company has underperformed the benchmark US foods sector by 25 per cent, and underperformed against the leading indices in London, Amsterdam and New York.

BP bought deal One of the biggest bought deals in the UK equity market

for some years saw SBC Warburg purchase the government's remaining 1.8 per cent stake - 101m shares in British Petroleum and place the stock with a variety of institutions.

SBC bought the stock for 508p a share - a discount of between 3 and 4 per cent to the prevailing market price - and placed it at 513p a share, a very tight margin for such a massive line of shares. It realised more than 55m on the deal.

The money was well earned, however. News of the sale was released at 10am and the last of the stock was said to have been placed around 2.30pm. UK and European institutions were believed to have taken up the lion's share, with US investors happy to hoover up what was left over as Wall Street opened for business.

"I take my hat off to SBC for what was a very aggressive piece of stockbroking," said one senior trader, who insisted that the London market's appetite for BP shares was relatively limited. BP hit an all-time high of 531 1/4p on Monday, lifted by the recent uptick in oil prices since news last week that King Fahd of Saudi Arabia had been taken ill.

The BP bought deal is SBC's second big move in the oil sector since the spring. It placed Enterprise Oil's 9.9 per cent in Lasso in March.

BP shares were badly hit as the placing got under way. Opening at 531p, the stock fell back to finish 14c cheaper at 517p. Turnover by 6pm had reached 185m shares.

Conglomerate BTR tumbled after it surprised the market with a profits warning. The group said current year figures

will not meet market expectations, although they would be above last year's £1.1bn. BTR said activity had been affected by slowing growth in Australian construction and the North American and European automotive sectors.

The shares lost more than 4 per cent of their value as they fell 14 to 320p, the day's sharpest retreat among Footsie constituents.

Analysts downgraded forecasts. The list included Hovore Goyett, where Mr David Ireland cut his current year profits estimate from £1.52bn to £1.41bn, citing poor performance in the majority owned polymer operation in Taiwan.

Internationally traded stocks ignored the weakness in London and responded instead to the record performance of the Dow Jones Industrial Average in New York.

Meanwhile, the big players in the pharmaceutical sector also benefited from some investors shifting holdings out of cyclical stocks, following the profits warning from BTR.

Glaxo Wellcome was squeezed 13 higher after the company's American Depositary Receipts rose 5 1/2 to 27 1/2 in New York on Monday night. And the further strength on Wall Street yesterday saw the world's biggest drugs group close 25 up at 689p. SmithKline Beecham added 8 to 701p.

Hanson, the conglomerate savaged by post-results downgrades last week, rallied 1 1/4 to 186p on turnover of 30m.

The bid speculation that surrounded betting to hotels group Ladbrokes on Monday afternoon initially died down yesterday morning, but returned just before the close. After an official close of 157 1/2p, down 1 1/4 on the day, the stock suddenly jumped after hours, reaching 163p. Turnover was 7.9m shares.

Dealers said Bass remained the market's favourite, despite a bid for Ladbrokes and that an aggressive move would almost certainly come this morning along with Bass's preliminary results. Bass shed 5 to 669p in turnover of 2m shares.

Suggestions that a bid might be in the offing lifted Mercury Asset Management shares by 16 to 908p. National Westminster was one of the favourites to bid for the group.

NatWest was the best performer in banks. The shares rose 11 to 672p on good turnover of 5.3m, with James Capel, the broker, said to have recommended the stock.

Midlands Electricity raced up 34 to 965p after the much better than expected figures, including a 100p special dividend and a proposed two-for-one share split.

The biotechnology sub-sector of the market attracted attention. British Biotech, which had spent up on hopes for the group's new cancer treatment, slipped 110p to 1808p. It was announced that two directors sold more than 300,000 shares between them at 1760p each. They had acquired the stock in the form of options, mostly at the equivalent of 337.41p a share.

Siebo, the international controls and appliances group, jumped 29 to 768p after announcing it had lifted interim profits from £119.5m to £144.2m, on increased sales of £1.2bn. The profits were in line with analysts' forecasts and much of the rise represented a bonus from Monday's 23p.

But the company's statement was seen as aggressive and proactive.

Various Footsie relegation candidates staged a last minute rally, before the indices committee meets today.

Arjo Wiggins Appleton, down nearly 30 per cent over the past month, picked up 5 to 171p. De La Rue, off by the same amount, rallied 12 to

660p, with BZW believed to have issued a buy note. Inchcape, almost certain to disappear from the blue chip index, held at 236p and Sears, the fourth candidate for removal, softened to 97 1/2p.

Amec, currently facing a hostile £260m bid from Kvaerner, the Norwegian shipbuilding and engineering group, held resolutely at 101p, a penny above the bid price. Nissabo (two) the Japanese trading house, was again thought to have been in the market buying the ordinary shares, in spite of earlier denials that it intended to buy any more stock. So far the Japanese group's stake is thought to be less than 1 per cent.

MARKET REPORTERS: Steve Thompson, Peter Jones, Joel Kibazo.

LONDON RECENT ISSUES: EQUITIES

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

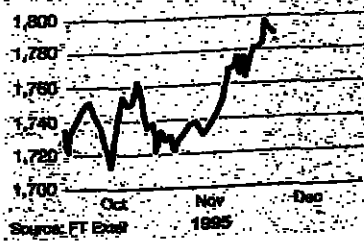
Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

Issue	Price	Size	Time	Price	Size	Time
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98
100 F.P.	24.5	98	98	24.5	98	98

FT-SE A All-Share Index



Index	Value	Change
FT-SE 100	3983.3	+5.5
FT-SE 100 Index	3983.3	+5.5
FT-SE 100 Index	3983.3	+5.5

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FT-SE 100	3983.3	+5.5
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FT-SE 100	3983.3	+5.5
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FT-SE 100	3983.3	+5.5
FT-SE 100 Index	3983.3	+5.5
FT-SE 100 Index	3983.3	+5.5

Index	Value	Change
FT-SE 100	3983.3	+5.5
FT-SE 100 Index	3983.3	+5.5

NEW YORK STOCK EXCHANGE COMPOSITE PRICES

Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock	Low Stock</
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File

NASDAQ NATIONAL MARKET

4. 1997-1998 (2000/01)

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Stock	Pr.	Ch.	Up	Down	Low	High	Open	Close	Vol.	Stock	Pr.	Ch.	Up	Down	Low	High	Open	Close	Vol.	Stock	Pr.	Ch.	Up	Down	Low	High	Open	Close	Vol.	Stock	Pr.	Ch.	Up	Down	Low	High	Open	Close	Vol.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
ABC Inc.	12.00	0.10	147	135	9 1/4	9 1/4	9 1/4	9 1/4	100	DEF Corp.	15.00	0.20	120	110	7 1/2	7 1/2	7 1/2	7 1/2	150	GHI Ltd.	8.00	0.05	90	85	5 1/4	5 1/4	5 1/4	5 1/4	200	JKL Inc.	20.00	0.30	180	170	11 1/4	11 1/4	11 1/4	11 1/4	300	MNO Corp.	10.00	0.15	110	105	6 3/4	6 3/4	6 3/4	6 3/4	180	PQR Ltd.	18.00	0.25	160	150	9 3/4	9 3/4	9 3/4	9 3/4	250	STU Inc.	14.00	0.18	130	125	8 1/4	8 1/4	8 1/4	8 1/4	220	VWX Corp.	16.00	0.22	140	135	8 3/4	8 3/4	8 3/4	8 3/4	210	YZA Ltd.	12.00	0.12	100	95	7 1/4	7 1/4	7 1/4	7 1/4	160	BCD Inc.	11.00	0.10	90	85	6 1/4	6 1/4	6 1/4	6 1/4	140	EFG Corp.	13.00	0.14	110	105	7 3/4	7 3/4	7 3/4	7 3/4	170	HIJ Ltd.	15.00	0.16	120	115	8 1/4	8 1/4	8 1/4	8 1/4	190	KLM Inc.	17.00	0.20	150	145	9 1/4	9 1/4	9 1/4	9 1/4	230	NOP Corp.	19.00	0.24	170	165	10 1/4	10 1/4	10 1/4	10 1/4	260	QRS Ltd.	21.00	0.28	190	185	11 1/4	11 1/4	11 1/4	11 1/4	280	TUV Inc.	23.00	0.32	210	205	12 1/4	12 1/4	12 1/4	12 1/4	300	WXY Corp.	25.00	0.36	230	225	13 1/4	13 1/4	13 1/4	13 1/4	320	ZAB Ltd.	27.00	0.40	250	245	14 1/4	14 1/4	14 1/4	14 1/4	340	ACD Inc.	29.00	0.44	270	265	15 1/4	15 1/4	15 1/4	15 1/4	360	DEF Corp.	31.00	0.48	290	285	16 1/4	16 1/4	16 1/4	16 1/4	380	GHI Ltd.	33.00	0.52	310	305	17 1/4	17 1/4	17 1/4	17 1/4	400	JKL Inc.	35.00	0.56	330	325	18 1/4	18 1/4	18 1/4	18 1/4	420	MNO Corp.	37.00	0.60	350	345	19 1/4	19 1/4	19 1/4	19 1/4	440	PQR Ltd.	39.00	0.64	370	365	20 1/4	20 1/4	20 1/4	20 1/4	460	STU Inc.	41.00	0.68	390	385	21 1/4	21 1/4	21 1/4	21 1/4	480	VWX Corp.	43.00	0.72	410	405	22 1/4	22 1/4	22 1/4	22 1/4	500	YZA Ltd.	45.00	0.76	430	425	23 1/4	23 1/4	23 1/4	23 1/4	520	BCD Inc.	47.00	0.80	450	445	24 1/4	24 1/4	24 1/4	24 1/4	540	EFG Corp.	49.00	0.84	470	465	25 1/4	25 1/4	25 1/4	25 1/4	560	HIJ Ltd.	51.00	0.88	490	485	26 1/4	26 1/4	26 1/4	26 1/4	580	KLM Inc.	53.00	0.92	510	505	27 1/4	27 1/4	27 1/4	27 1/4	600	NOP Corp.	55.00	0.96	530	525	28 1/4	28 1/4	28 1/4	28 1/4	620	QRS Ltd.	57.00	1.00	550	545	29 1/4	29 1/4	29 1/4	29 1/4	640	TUV Inc.	59.00	1.04	570	565	30 1/4	30 1/4	30 1/4	30 1/4	660	WXY Corp.	61.00	1.08	590	585	31 1/4	31 1/4	31 1/4	31 1/4	680	ZAB Ltd.	63.00	1.12	610	605	32 1/4	32 1/4	32 1/4	32 1/4	700	ACD Inc.	65.00	1.16	630	625	33 1/4	33 1/4	33 1/4	33 1/4	720	DEF Corp.	67.00	1.20	650	645	34 1/4	34 1/4	34 1/4	34 1/4	740	GHI Ltd.	69.00	1.24	670	665	35 1/4	35 1/4	35 1/4	35 1/4	760	JKL Inc.	71.00	1.28	690	685	36 1/4	36 1/4	36 1/4	36 1/4	780	MNO Corp.	73.00	1.32	710	705	37 1/4	37 1/4	37 1/4	37 1/4	800	PQR Ltd.	75.00	1.36	730	725	38 1/4	38 1/4	38 1/4	38 1/4	820	STU Inc.	77.00	1.40	750	745	39 1/4	39 1/4	39 1/4	39 1/4	840	VWX Corp.	79.00	1.44	770	765	40 1/4	40 1/4	40 1/4	40 1/4	860	YZA Ltd.	81.00	1.48	790	785	41 1/4	41 1/4	41 1/4	41 1/4	880	BCD Inc.	83.00	1.52	810	805	42 1/4	42 1/4	42 1/4	42 1/4	900	EFG Corp.	85.00	1.56	830	825	43 1/4	43 1/4	43 1/4	43 1/4	920	HIJ Ltd.	87.00	1.60	850	845	44 1/4	44 1/4	44 1/4	44 1/4	940	KLM Inc.	89.00	1.64	870	865	45 1/4	45 1/4	45 1/4	45 1/4	960	NOP Corp.	91.00	1.68	890	885	46 1/4	46 1/4	46 1/4	46 1/4	980	QRS Ltd.	93.00	1.72	910	905	47 1/4	47 1/4	47 1/4	47 1/4	1000	TUV Inc.	95.00	1.76	930	925	48 1/4	48 1/4	48 1/4	48 1/4	1020	WXY Corp.	97.00	1.80	950	945	49 1/4	49 1/4	49 1/4	49 1/4	1040	ZAB Ltd.	99.00	1.84	970	965	50 1/4	50 1/4	50 1/4	50 1/4	1060	ACD Inc.	101.00	1.88	990	985	51 1/4	51 1/4	51 1/4	51 1/4	1080	DEF Corp.	103.00	1.92	1010	1005	52 1/4	52 1/4	52 1/4	52 1/4	1100	GHI Ltd.	105.00	1.96	1030	1025	53 1/4	53 1/4	53 1/4	53 1/4	1120	JKL Inc.	107.00	2.00	1050	1045	54 1/4	54 1/4	54 1/4	54 1/4	1140	MNO Corp.	109.00	2.04	1070	1065	55 1/4	55 1/4	55 1/4	55 1/4	1160	PQR Ltd.	111.00	2.08	1090	1085	56 1/4	56 1/4	56 1/4	56 1/4	1180	STU Inc.	113.00	2.12	1110	1105	57 1/4	57 1/4	57 1/4	57 1/4	1200	VWX Corp.	115.00	2.16	1130	1125	58 1/4	58 1/4	58 1/4	58 1/4	1220	YZA Ltd.	117.00	2.20	1150	1145	59 1/4	59 1/4	59 1/4	59 1/4	1240	BCD Inc.	119.00	2.24	1170	1165	60 1/4	60 1/4	60 1/4	60 1/4	1260	EFG Corp.	121.00	2.28	1190	1185	61 1/4	61 1/4	61 1/4	61 1/4	1280	HIJ Ltd.	123.00	2.32	1210	1205	62 1/4	62 1/4	62 1/4	62 1/4	1300	KLM Inc.	125.00	2.36	1230	1225	63 1/4	63 1/4	63 1/4	63 1/4	1320	NOP Corp.	127.00	2.40	1250	1245	64 1/4	64 1/4	64 1/4	64 1/4	1340	QRS Ltd.	129.00	2.44	1270	1265	65 1/4	65 1/4	65 1/4	65 1/4	1360	TUV Inc.	131.00	2.48	1290	1285	66 1/4	66 1/4	66 1/4	66 1/4	1380	WXY Corp.	133.00	2.52	1310	1305	67 1/4	67 1/4	67 1/4	67 1/4	1400	ZAB Ltd.	135.00	2.56	1330	1325	68 1/4	68 1/4	68 1/4	68 1/4	1420	ACD Inc.	137.00	2.60	1350	1345	69 1/4	69 1/4	69 1/4	69 1/4	1440	DEF Corp.	139.00	2.64	1370	1365	70 1/4	70 1/4	70 1/4	70 1/4	1460	GHI Ltd.	141.00	2.68	1390	1385	71 1/4	71 1/4	71 1/4	71 1/4	1480	JKL Inc.	143.00	2.72	1410	1405	72 1/4	72 1/4	72 1/4	72 1/4	1500	MNO Corp.	145.00	2.76	1430	1425	73 1/4	73 1/4	73 1/4	73 1/4	1520	PQR Ltd.	147.00	2.80	1450	1445	74 1/4	74 1/4	74 1/4	74 1/4	1540	STU Inc.	149.00	2.84	1470	1465	75 1/4	75 1/4	75 1/4	75 1/4	1560	VWX Corp.	151.00	2.88	1490	1485	76 1/4	76 1/4	76 1/4	76 1/4	1580	YZA Ltd.	153.00	2.92	1510	1505	77 1/4	77 1/4	77 1/4	77 1/4	1600	BCD Inc.	155.00	2.96	1530	1525	78 1/4	78 1/4	78 1/4	78 1/4	1620	EFG Corp.	157.00	3.00	1550	1545	79 1/4	79 1/4	79 1/4	79 1/4	1640	HIJ Ltd.	159.00	3.04	1570	1565	80 1/4	80 1/4	80 1/4	80 1/4	1660	KLM Inc.	161.00	3.08	1590	1585	81 1/4	81 1/4	81 1/4	81 1/4	1680	NOP Corp.	163.00	3.12	1610	1605	82 1/4	82 1/4	82 1/4	82 1/4	1700	QRS Ltd.	165.00	3.16	1630	1625	83 1/4	83 1/4	83 1/4	83 1/4	1720	TUV Inc.	167.00	3.20	1650	1645	84 1/4	84 1/4	84 1/4	84 1/4	1740	WXY Corp.	169.00	3.24	1670	1665	85 1/4	85 1/4	85 1/4	85 1/4	1760	ZAB Ltd.	171.00	3.28	1690	1685	86 1/4	86 1/4	86 1/4	86 1/4	1780	ACD Inc.	173.00	3.32	1710	1705	87 1/4	87 1/4	87 1/4	87 1/4	1800	DEF Corp.	175.00	3.36	1730	1725	88 1/4	88 1/4	88 1/4	88 1/4	1820	GHI Ltd.	177.00	3.40	1750	1745	89 1/4	89 1/4	89 1/4	89 1/4	1840	JKL Inc.	179.00	3.44	1770	1765	90 1/4	90 1/4	90 1/4	90 1/4	1860	MNO Corp.	181.00	3.48	1790	1785	91 1/4	91 1/4	91 1/4	91 1/4	1880	PQR Ltd.	183.00	3.52	1810	1805	92 1/4	92 1/4	92 1/4	92 1/4	1900	STU Inc.	185.00	3.56	1830	1825	93 1/4	93 1/4	93 1/4	93 1/4	1920	VWX Corp.	187.00	3.60	1850	1845	94 1/4	94 1/4	94 1/4	94 1/4	1940	YZA Ltd.	189.00	3.64	1870	1865	95 1/4	95 1/4	95 1/4	95 1/4	1960	BCD Inc.	191.00	3.68	1890	1885	96 1/4	96 1/4	96 1/4	96 1/4	1980	EFG Corp.	193.00	3.72	1910	1905	97 1/4	97 1/4	97 1/4	97 1/4	2000	HIJ Ltd.	195.00	3.76	1930	1925	98 1/4	98 1/4	98 1/4	98 1/4	2020	KLM Inc.	197.00	3.80	1950	1945	99 1/4	99 1/4	99 1/4	99 1/4	2040	NOP Corp.	199.00	3.84	1970	1965	100 1/4	100 1/4	100 1/4	100 1/4	2060	QRS Ltd.	201.00	3.88	1990	1985	101 1/4	101 1/4	101 1/4	101 1/4	2080	TUV Inc.	203.00	3.92	2010	2005	102 1/4	102 1/4	102 1/4	102 1/4	2100	WXY Corp.	205.00	3.96	2030	2025	103 1/4	103 1/4	103 1/4	103 1/4	2120	ZAB Ltd.	207.00	4.00	2050	2045	104 1/4	104 1/4	104 1/4	104 1/4	2140	ACD Inc.	209.00	4.04	2070	2065	105 1/4	105 1/4	105 1/4	105 1/4	2160	DEF Corp.	211.00	4.08	2090	2085	106 1/4	106 1/4	106 1/4	106 1/4	2180	GHI Ltd.	213.00	4.12	2110	2105	107 1/4	107 1/4	107 1/4	107 1/4	2200	JKL Inc.	215.00	4.16	2130	2125	108 1/4	108 1/4	108 1/4	108 1/4	2220	MNO Corp.	217.00	4.20	2150	2145	109 1/4	109 1/4	109 1/4	109 1/4	2240	PQR Ltd.	219.00	4.24	2170	2165	110 1/4	110 1/4	110 1/4	110 1/4	2260	STU Inc.	221.00	4.28	2190	2185	111 1/4	111 1/4	111 1/4	111 1/4	2280	VWX Corp.	223.00	4.32	2210	2205	112 1/4	112 1/4	112 1/4	112 1/4	2300	YZA Ltd.	225.00	4.36	2230	2225	113 1/4	113 1/4	113 1/4	113 1/4	2320	BCD Inc.	227.00	4.40	2250	2245	114 1/4	114 1/4	114 1/4	114 1/4	2340	EFG Corp.	229.00	4.44	2270	2265	115 1/4	115 1/4	115 1/4	115 1/4	2360	HIJ Ltd.	231.00	4.48	2290	2285	116 1/4	116 1/4	116 1/4	116 1/4	2380	KLM Inc.	233.00	4.52	2310	2305	117 1/4	117 1/4	117 1/4	117 1/4	2400	NOP Corp.	235.00	4.56	2330	2325	118 1/4	118 1/4	118 1/4	118 1/4	2420	QRS Ltd.	237.00	4.60	2350	2345	119 1/4	119 1/4	119 1/4	119 1/4	2440	TUV Inc.	239.00	4.64	2370	2365	120 1/4	120 1/4	120 1/4	120 1/4	2460	WXY Corp.	241.00	4.68	2390	2385	121 1/4	121 1/4	121 1

4 pm class December 5

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Financial Times. World Business Newspaper.

AMERICA

Dow climbs with bonds, Nasdaq eases

Wall Street

US share prices continued to rise as the bond market edged higher, although technology issues gave up some of the sharp gains made on Monday. *Yorles Lisa Branstetter in New York*

At 12:30 pm, the Dow Jones Industrial Average was up 33.96 at 5,173.48. The Standard & Poor's 500 was 2.81 stronger at 616.49 and the American Stock Exchange composite added 0.94 at 539.27. Volume on the New York Stock Exchange amounted to 227m shares.

The Dow edged lower just after the opening bell as bonds succumbed to some profit-taking, but the index moved higher as weak economic news spurred the long end of the Treasury market to new highs. In early trading the yield on the 30-year Treasury bond was at 6.014 per cent and traders were waiting to see if the rally could push it below 6 per cent.

Meanwhile, the technology-rich Nasdaq composite shed 1.10 of the 14.48 it added on Monday, bringing the index to 1,068.64. Shares in high-tech companies were mixed. LSI Logic slipped to \$20.14, giving up 61¢ of the \$4 that it added on Monday.

Microsoft, the largest company on the Nasdaq, fell 1¢ to \$86.1. Dell Computers lost 3¢ to \$37.7 and Brother International Software was up 5¢ to \$47.7. While Sun Microsystems added \$3 to \$82.2 and Adobe Software was 1¢ higher at \$71.

Internet-related companies continued to soar. Netscape Communications advanced \$10.7 to \$160.4 and Spyglass gained 5¢ to \$115.

Rubbermaid added 3¢ or 3 per cent at \$26.7 after the com-

pany announced that it would reduce costs in manufacturing and distribution by reducing its warehouse space and product lines and cutting 9 per cent of its global workforce.

The company said it expected to post 1995 earnings, before the restructuring cost of about \$1 per share on estimated sales of \$2.4bn. Earnings per share after the charge would be about 41 cents. Bausch & Lomb declined 1¼ or 3 per cent to \$36.4 after forecasting fourth-quarter earnings of 40 to 50 cents a share compared to the median Wall Street estimate of 77 cents a share. The company also announced that Mr Daniel Gill, its chief executive, would ask the board for a 10 per cent pay cut.

Canada

Toronto climbed into record territory at mid-session: the TSE 300 Composite index was 9.43 higher by noon at 4,721.30 in very heavy volume of 43.8m shares.

Royal Bank of Canada eased 3¢ to C\$32.4 as the bank, Canada's largest, reported that third-quarter earnings rose to 90 cents a share, from 83 cents in 1994.

Royal Bank added that tight cost controls, higher revenues and an improving loan portfolio had generated record annual profits.

WIC Western International Communications picked up 81¢ to C\$24.4 on renewed speculation that the broadcaster might still be vulnerable to a bid from CanWest Global Communications.

Methanex picked up 3¢ to C\$10.7 in active trade, while recently active CanWest Technologies fell 31¢ to C\$22.4.

Mexico City easier

Mexico City slipped in late morning trade as investors took profits after the sharply higher trend of recent weeks.

By noon the IPC index was standing 14.13 softer at 2,675.45, with this week's political clash between two former presidents, Mr Carlos Salinas and Mr Luis Echeverría, souring the otherwise bullish mood in the market.

Some analysts forecast, however, that stocks could rebound later in the day if rates fell, as

expected, at Banco de Mexico's weekly primary auction.

BUENOS AIRES was weak in mid-session, awaiting employment data for the city and its outskirts.

The Merval index registered a decline of 3.09 at 488.97.

SANTIAGO receded in mid-day trade as profits were taken after Monday's near 4 per cent surge on news that the IPC was to raise Chile's weightings in its stock index. The 40-share IPSA index gave up 0.6 to 99.51.

S African industrials at high

Johannesburg rocketed higher as industrial stocks rallied on a futures arbitrage play and gold shares advanced on speculation of a rise in the bullion price.

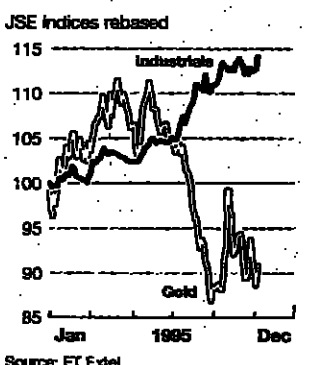
The industrial index jumped 72.1 to a 1995 high of 7,723.3, while golds added 26.4 at 1,313.8. The overall index moved ahead 63.0 to 6,045.7.

The banking sector was in favour, with Standard Bank appreciating R5 to R165 and Nedcor up R2 to R63, both setting 1995 peaks.

Among gold shares, Western Deep Levels moved forward R6 to R117, Kloof finished 90 cents firmer at R34.75 and Freegold, the country's largest producer, was 70 cents dearer at R29.65.

Commodity issues remained under pressure, with Sappi,

South Africa



the pulp and paper group, tumbling R5.50 or 9.5 per cent to R50.50 and Implats, the platinum producer, closing R1 lower at R75.

EUROPE

Belief in government takes Paris into recovery

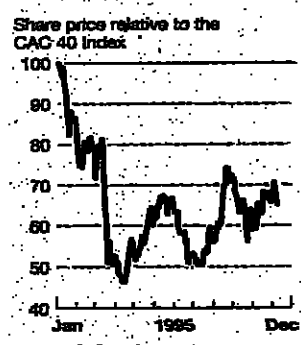
New highs for the Dow and a late recovery in the dollar were good for markets in general, and German bunds improved late in the day. But it was PARIS, yet again, which took centre stage in Europe, with its financial markets rallying on the belief that the French government would stand firm on its ambitious financial reforms, in the face of a 12-day strike which had paralysed the country.

The franc and French domestic bonds recovered, and the CAC-40 index rose 40.01 or 2.3 per cent to 1,814.87.

Turnover eased from FF4.8bn to FF3.8bn. In equities, financials most clearly reflected the recovery in bonds, with Société Générale up FF26 at FF598 and UAP FF5 higher at FF126.60; but there was an exception, yet again, in Crédit Lyonnais, down FF11.70 at FF282.60 on reports that the bank, bailed out earlier this year, was still under serious pressure.

Among other continuing stories, Pechiney certificates managed to close unchanged at FF207 after an intra-day fall to FF203; on a 11:10 conversion ratio, the FF187 privatisation price for its ordinary shares stayed barely respectable. Elf-

Credit Lyonnais



Aquitaine rose FF6.10 to FF398.20 after Monday's FF14.40 drop; it emerged that two brokers had made downward adjustments to their 1995 and 1996 earnings forecasts for the oil company. Eurotunnel, meanwhile, moved up 45 cents to FF4.95 on higher traffic figures for its Shuttle service in November.

FRANKFURT recovered from mid-afternoon weakness on Wall Street and on a late rise in domestic bonds, the Dax index closing 8.26 higher at 2,269.34 after a low of 2,255.67.

Turnover rose from DM4.2bn to DM6bn. BMW, unusually,

was the second most active stock, trading in DM434m as it fell DM15 to DM763.50. The carmaker strongly denied rumours that a recall action was imminent to fix a petrol tank defect on one of its models, but traders said that the story was unsettling.

In contrast, Schering lost only 28 pps to DM98.35 after the overnight news that Biogen, its competitor, had received a favourable FDA recommendation for its Avonex multiple sclerosis drug in the US. Analysts noted that Schering, formerly a high flyer, had been pulled back from a high of DM114.70 this year, and that hopes for Biogen had been trimmed back.

ZURICH finished flat as some of the market's recent star performers ran into profit-taking. The SMI index, however, still registered another all-time high, edging ahead 0.1 to 3,288.2, but off the day's peak of 3,300.

Among the stars, Roche certificates fell SF20 to SF8.830, while Ciba was SF9 lower at SF1.050.

By contrast, banks were relatively resilient to the weak trend. CS Holding picked up

FT-SE Actuaries Share Indices

Dec 5		Open		10.30		11.00		12.00		13.00		14.00		Close	
FT-SE Actuaries 100	1451.60	1450.86	1451.60	1451.31	1449.15	1450.12	1452.97	1452.97	1452.97	1452.97	1452.97	1452.97	1452.97	1452.97	1452.97
FT-SE Actuaries 200	1582.11	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02	1580.02

Dec 4		Dec 1		Nov 30		Nov 29		Nov 28	
FT-SE Actuaries 100	1446.02	1457.86	1454.02	1451.76	1451.76	1451.76	1451.76	1451.76	1451.76
FT-SE Actuaries 200	1557.89	1554.89	1552.19	1552.19	1552.19	1552.19	1552.19	1552.19	1552.19

SF2.25 to SF114.50 on options related buying and UBS edged SF1 higher to SF1.235. Oerlikon-Bührle, the arms to fashion group, softened SF1 to SF3.58 after its strong gains in recent days. After the bounce closed, the company forecast that 1995 group net profits would be below last year's figure of SF775m.

SMH tumbled SF18 to SF16.61 as investors trimmed their expectations for the company's Christmas business.

MILAN was unmoved by rumours that November's inflation data may be revised upwards today, and the Comit index fell 2.23 to a new low for the year of 547.73.

Analysts noted that volumes remained low as concern over the passage of the 1996 budget through parliament, and uncertainty over the date of the next general election, continued to

appointment of a successor to Mr Cor Boonstra, one of the few Philips chairmen to come in from outside the company.

STOCKHOLM was depressed by political worries, the Affarsvården General index closing 4.0 lower at 1,734.4 on the prospect, confirmed after hours, that Mr Göran Persson, the finance minister, would not be running for the post of prime minister.

Banks finished down, after opening on a buoyant note with long bond yields: note again. Forestries were again the day's weakest sector, dropping 1.6 per cent as Munksjö joined the ranks of those cutting softwood pulp prices, and the shares lost SKr2 to SKr248.

ISTANBUL extended its recovery with a gain of 3.6 per cent, the composite index closing 1,448.67 higher at 41,894.20 and turnover, climbing from TL8,110bn to TL15,410bn.

Brokers said that activity was led by stocks in the textile, food and glass sectors, where expectations were enhanced by Turkey's planned customs union pact with the EU, to be voted on by the European parliament a week today.

Unilever, accounting for 10 per cent of the index, rose FL16.80 to FL224, boosted by talk that US brokers had upgraded the shares. Philips climbed FL1.30 to FL62.40 following news of the retirement of its chairman, Mr Jan Timmer, and the immediate

Written and edited by William Cochrane and Michael Morgan

ASIA PACIFIC

Tokyo traders cautious, Roh indictment lifts Seoul

Tokyo

A cautious mood emerged ahead of Friday's settlement of December futures and options contracts, trading activity declined and the Nikkei average closed marginally lower, writes Emiko Terazono in Tokyo.

The 225 index ended 17.84 down at 18,979.53 after a high of 18,977.58 and low of 18,822.84. Share prices rose in the morning session on Monday's rally on Wall Street, but heavy selling around the 10,000 level by domestic institutional investors dampened confidence, prompting profit-taking.

Volume totalled 388m shares, against 461m. The Toxip index of all first section stocks shed 0.45 to 1,502.26 and the Nikkei 300 edged up 0.04 to 282.35. Losers led gainers by 590 to 444, with 185 issues unchanged.

In London the ISE/Nikkei 50 index put on 0.79 at 1,290.98.

Domestic institutions took profits on large-capital steels, although traders said demand from foreign investors, viewing steel stocks as interest rate-sensitive issues, seemed to support the sector.

Nippon Steel slipped Y3 to Y353, while NKK lost Y4 to Y281 after initially rising on buying by a US securities house. Shipbuilders were also lower, with Mitsui Engineering and Shipbuilding closing Y4 lighter at Y266.

Japan Energy moved forward Y5 to Y325 on active buying by individual investors. Reports that the company had begun clinical tests on an anti-Aids drug in London supported confidence.

Continued belief in a short term solution for the jusen crisis boosted bank stocks. Fuji Bank gained Y30 at Y2,150 and Sumitomo Bank added Y20 to Y2,080. Other financials, however, were lower on profit-taking, with Tokyo Marine & Fire down Y10 to Y1,210 and Yamaiichi Securities Y1 to Y855.

Active profit-taking by corporate investors depressed high-technology stocks, although some European brokerage houses placed buying orders at lower levels. Kyocera fell Y30

to Y3,130 and Fanuc Y30 to Y4,290. Consumer electronics were also weaker, with Sony Y30 cheaper at Y5,500.

In Osaka, the OSE average eased 7.73 to 20,315.75 in volume of 139.3m shares. Aoyama Trading, the men's suit maker, jumped Y210 to Y3,400 on active buying.

Roundup

News that prosecutors had formally announced the indictment of the former president Roh Tae-woo on charges of taking bribes helped SEOUL ahead, but volume stayed low, suggesting that investors remained concerned about the future direction of the market.

The composite index picked up 12.03 to 946.98 in volume of just 17.1m shares.

The prosecutor's office also said that the chairmen of Daewoo, Samsung and Dong A groups would be indicted without detention on charges of bribing Roh.

Daewoo Group affiliate shares plunged immediately after the prosecution announcement, then quickly rebounded. Daewoo Corp, the most actively traded stock of the day, closed Won100 up at Won9,580. Daewoo Telecom climbed Won400 to Won12,300 and Daewoo Metal was unchanged at Won1,900.

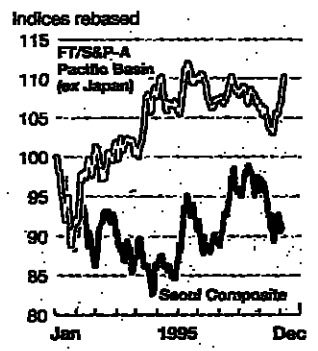
Core blue stocks were higher. Samsung Electronics rose Won5,500 to Won150,000 while Hyundai Motors climbed Won1,200 to Won3,000.

HONG KONG found the 10,000 level unsustainable and the Hang Seng index turned back from a day's high of 10,063.14 to finish 34.74 ahead at 9,975.37, as turnover swelled to HK\$4.9bn.

Analysts attributed a brief dip into negative territory in the afternoon to a technical correction, as the market had gone up too fast in recent days and profit-takers emerged after the index failed to break above the year's high at 10,069.

Blue chips again dominated the active list. HSBC rose HK\$1 to HK\$116.50, Hongkong Telecom gained 25 cents at HK\$13.60 and Cheung Kong edged up 10 cents to HK\$44.70.

South Korea



SINGAPORE closed little changed after profit-taking emerged in some blue chips, but foreign demand was said to have remained strong. The Straits Times Industrial Index

finished 3.88 ahead at a new four-month high of 2,168.48.

Metro Holdings, the retailer, slipped 30 cents or 5.5 per cent to S\$5.15, retracting sharp gains made on Monday.

KUALA LUMPUR ran into technical selling during the morning, after the 6.8 per cent rally over the past six trading sessions, before funds returned as buyers during the afternoon session, taking the composite index up another 6.33 by the close to 891.57.

BOMBAY was dragged lower by end of account trade and weakness in Reliance, after its decision not to pursue its demand to delist took away the speculative element which had driven the stock in recent sessions. The BSE-30 index fell 28.99 to 3,007.24 and Reliance dropped Rs21.20 to Rs208.50.

SYDNEY finished flat, hav-

ing been spurred higher early in the day by the Dow's overnight performance before profit-taking pulled blue chips back from their best levels.

The All Ordinaries index closed 0.3 up at 2,203.1 after an intra-day peak of 2,220.6.

JAKARTA remained firm in spite of late profit-taking in some large-capital issues and the composite index gained 2.86 at 496.78, after briefly touching 500 in early trade.

Foreign-triggered buying, which focused mostly on banking and consumer stocks on Monday, shifted to other sectors such as property and transport. Lippo Bank fell Rp35 to Rp3,950 on profit-taking after a day's high of Rp4,300.

KARACHI added to Monday's 3.5 per cent rise with another of 2.1 per cent, even after early gains were trimmed

after rumours of a bomb explosion in Islamabad. The KSE-100 index rose 29.82 to 1,446.67.

TAIPEI reversed an early slide to close higher as bargain hunting emerged late in the session. The weighted index finished a net 37.08 ahead at the day's best of 4,722.97, but turnover was light at T\$21.8bn.

Among electronics shares, First International Computer climbed T\$1.30 or 3.8 per cent to T\$35.80 after its sales increased by more than 70 per cent in November.

Shipping shares also drew some buying interest on a local newspaper report that China had approved a plan to allow direct voyages between Taiwan and China. Ta Jung Transportation advanced T\$1.10 or 3 per cent to T\$38.20.

● Bangkok was closed for a holiday.

FT/S&P ACTUARIES WORLD INDICES

The FT/S&P Actuaries World Indices are owned by The Financial Times Ltd., Goldman, Sachs & Co. and Standard & Poor's. The indices are compiled by The Financial Times and Goldman Sachs in conjunction with the Institute of Actuaries and the Faculty of Actuaries. NatWest Securities Ltd. was a co-founder of the indices.

NATIONAL AND REGIONAL MARKETS									
Figures in parentheses show change of line of stock									
MONDAY DECEMBER 4 1995									
	US Dollar Index	Day's Change %	Point	Starting Index	Yen Index	DM Index	Local Currency Index	Local % chg	Grass Div. Yield
FRIDAY DECEMBER 1 1985									
	US Dollar Index	Round Stock Index	Yen Index	DM Index	Local Currency Index	Local % chg	Week % chg	Year ago (approx)	
Australia (82)	178.51	1.9	182.25	120.39	140.84	180.56	1.9	3.89	18.42
Austria (27)	171.19	-0.9	165.50	108.33	127.99	127.92	-1.3	1.83	172.68
Belgium (28)	201.41	0.8	194.72	128.63	150.58	146.87	0.2	3.56	198.89
Brazil (28)	140.98	-0.5	136.20	89.87	105.33	280.57	-0.5	1.89	141.55
Canada (101)	147.62	0.9	143.01	94.47	110.59	146.26	0.9	2.94	146.86
Denmark (59)	264.74	0.3	275.26	161.05	212.28	215.80	-0.1	1.51	263.83
Finland (29)	215.57	-2.5	208.41	137.88	151.17	184.06	-2.7	1.66	221.06
France (100)	167.70	-2.8	162.13	107.10	125.38	131.70	-2.4	3.33	172.15
Germany (59)	181.38	0.2	180.00	103.05	120.84	120.64	-0.3	1.59	181.03
Hong Kong (8)	381.76	0.1	389.10	243.83	285.44	378.15	1.0	3.26	368.80
Ireland (16)	253.72	0.4	243.30	162.04	189.70	225.26	0.3	3.39	252.86
Italy (88)	27.67	-0.6	26.43	43.22	50.60	80.87	0.3	0.79	44.01
Japan (48)	120.58	0.6	115.53	66.14	112.50	98.14	0.5	0.79	148.01
Malaysia (108)	481.43	1.4	465.45	307.47	352.96	488.69	1.3	1.75	475.01
Mexico (18)	1010.50	-0.7	976.84	645.39	755.50	8402.25	-0.8	1.85	1017.12
Netherlands (19)	264.79	0.5	255.00	168.11	197.87	194.59	0.0	3.36	263.44
New Zealand (14)	78.28	-0.5	75.68	49.89	66.53	64.12	-0.5	4.22	70.67
Norway (22)	224.44	-0.9	216.99	143.34	187.80	193.16	-1.2	2.17	226.56
Singapore (44)	287.57	2.0	274.70	247.52	288.77	252.49	2.0	1.81	278.91
South Africa (5)	389.26	0.1	387.00	235.83	270.09	285.62	0.1	2.06	388.00
Spain (38)	158.86	0.1	153.58	101.45	118.77	147.82	-0.3	3.85	158.99
Sweden (47)	316.57	-1.0	308.08	202.18	236.69	308.06	-0.6	1.85	318.67
Switzerland (48)	229.65	1.1	222.32	146.87	171.70	183.23	0.5	1.80	221.15
Thailand (46)	182.88	3.8	157.47	104.02	121.78	158.92	3.7	2.56	155.95
United Kingdom (206)	228.27	-0.1	218.78	144.51	168.18	218.78	-0.2	4.00	219.69
USA (388)	250.98	1.1	242.13	160.26	187.93	250.98	1.1	2.23	248.27
Japan (1989)	226.71	1.1	221.11	146.07	170.09	192.22	1.1	2.23	226.23
Australia (82)	185.56	-0.2	180.06	124.88	148.21	187.17	-0.5	0.84	180.02
Canada (101)	150.87	0.8	147.50	93.88	109.22	138.88	0.8	2.92	146.88
France (100)	160.91	0.9	155.77	102.71	120.31	106.64	0.5	3.21	159.68
Germany (59)	175.24	0.3	166.42	111.82	133.02	129.57	0.1	2.08	174.72
Hong Kong (8)	386.35	0.1	384.00	242.50	285.00	372.50	0.1	3.25	375.00
Italy (88)	174.85	0.3	168.05	111.87	130.73	138.46	-0.6	2.49	173.44
Japan (1989)	226.34	1.5	251.71	166.28	184.88	228.78	1.5	3.22	256.53
Malaysia (108)	486.30	1.1	471.10	312.58	358.00	483.00	1.1	2.15	475.00
New Zealand (14)	78.36	0.7	102.07	125.52	154.94	182.13	0.3	2.15	175.70
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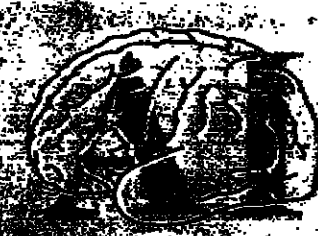
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Principal



From the
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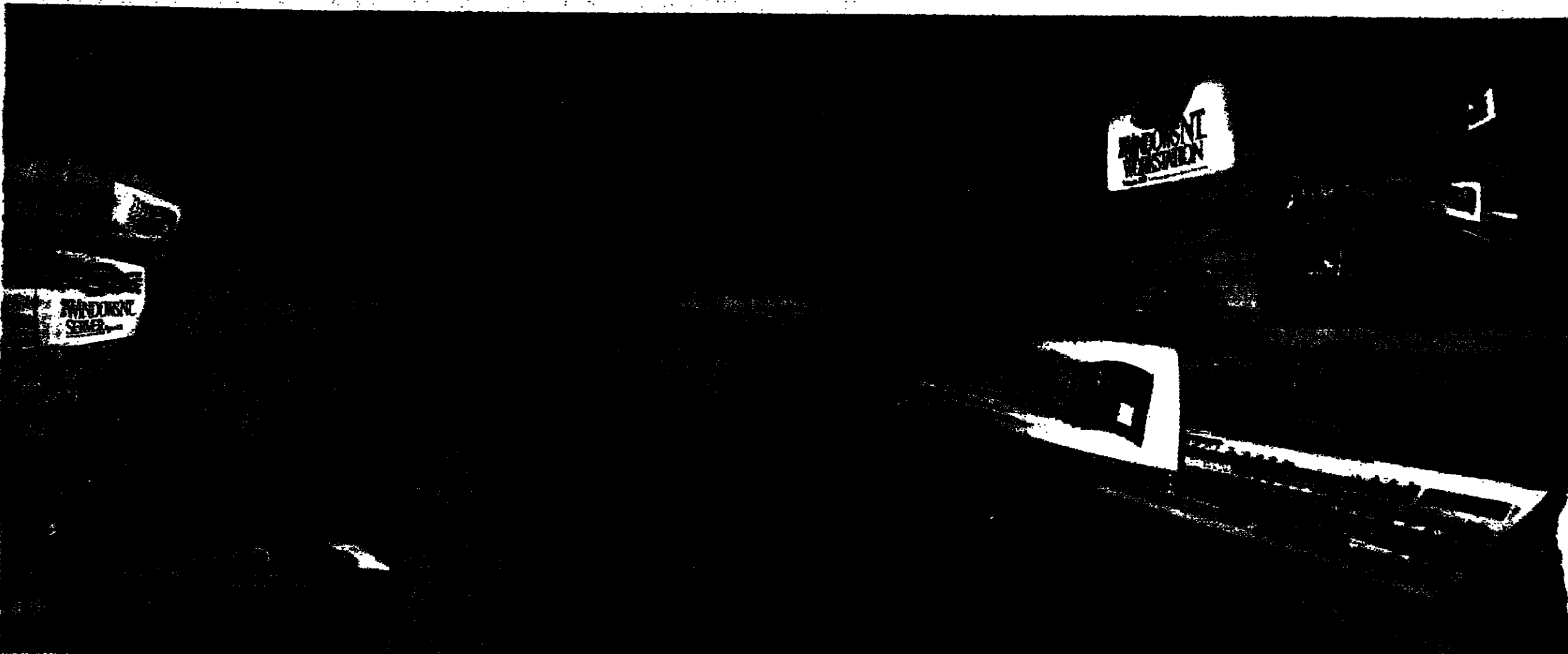


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Information Technology

December 6 1995



Do all roads lead to Cairo?

Microsoft's new operating system, Windows 95 - launched so spectacularly this year - is just one of the upgrade routes open to the corporate user. Paul Taylor discusses whether companies should adopt Windows 95 now or wait for the Cairo version of Windows NT

By almost any measure, the launch of Windows 95, Microsoft's new desktop computer operating system, in late August has been a success. In the first two months after its release, 7m copies of the upgrade and 4m installed on new PCs, were sold worldwide and, despite some early negative press reports, the switch appears to have gone remarkably smoothly. According to a study prepared by Techscan, a US-based market research firm, more than 91 per cent of Windows 95 users are 'satisfied' or 'very satisfied' with the product and Microsoft's help lines have not been swamped with angry callers. But while Windows 95 offers a number of distinct advantages for home PC and portable computer users in particular, many Windows 95 corporate users have been left wondering which operating system to adopt. Should they stick with Windows 3.x, upgrade to Windows 95 immediately, jump straight to Windows NT, Microsoft's fully 32-bit operating system - or wait for future versions of future incarnations of both systems including a version of NT called 'Cairo'?

Such confusion is understandable, given the technology involved. The mixed signals Microsoft has sent in the past about its future operating strategy, and the target markets for particular products. In fact, Windows 3.x, Windows 95 and Windows NT are three entirely different operating systems which

share similar graphical user interface-style 'front-ends' and share some sets of applications. In the corporate market, the most popular flavour of Windows is the past has been Windows 3.11 - also called Windows 9x. Workgroups, which was launched four years ago and is designed for corporate networking. Windows 3.11 uses older and slower 16-bit operating technology while its main rivals, IBM's OS/2 and the Apple's Macintosh operating system, moved to faster and more flexible 32-bit technology some time ago. Nevertheless, Windows 3.11 has been around for so long that many people are very familiar with it, and it runs fairly well on even modest PCs and, aside from occasional system 'crashes', is fairly robust. Windows 95 is designed to replace 3.11 with a new 32-bit architecture, an improved look and feel and a number of new and attractive features for both the consumer and corporate markets. However, some companies and other organisations are still nervous about switching to an early version of Windows 95 and have

been waiting for Microsoft to release a system upgrade - something Microsoft has said is not planned. Other customers are constrained by their hardware specs. Although Windows 95 has been designed to be backwardly compatible, its performance suffers if run on anything less than a high-speed 486 with at least 2Mb of Ram. As a result, many organisations are having to consider costly system upgrades or treat the migration to Windows 95 as part of a more comprehensive IT plan. Despite these reservations more than 180 large companies across the globe signed up with Microsoft to purchase and deploy Windows 95 in the first eight weeks after it was launched. Microsoft claims that more than half its top-1,000 US corporate accounts have already moved beyond the pilot stage to deploy the new operating system across their businesses. Among the companies and other organisations on both sides of the Atlantic which have adopted the new operating system are 3M, British Petroleum, the British Broad-

casting Corporation, Cisco Systems, Deloitte & Touche LLP, Dow Chemical, Ford Motor, Marks & Spencer, the National Aeronautics and Space Administration, Owens-Corning, Sprint, Toyota and Turner Broadcasting. These early converts will be relieved to discover that a report released last week by International Data Corp (IDC), the market researchers, confirms that users of Windows 95 outperformed Macintosh and OS/2 users, in terms of productivity. The IDC test indicates that users of Windows 95 completed common tasks in 15 per cent less time than Mac users, and with greater overall accuracy, says David Card, the report's author and director of PC software research at IDC.

The other current choice for corporate users of Windows is NT (originally NT stood for New Technology). Windows NT and Microsoft BackOffice, an integrated package of server software designed to work with Windows NT Server, is the cornerstone of Microsoft's longer term push into the heavy-duty corporate computing environment, an area which used to be dominated by proprietary mainframe systems and subsequently, as open systems were adopted, by the various varieties of Unix. NT looks more like Windows 3.x but behind the scenes is a fully-fledged 32-bit operating system designed specifically for corporate client/server networks and mission critical computing. After a somewhat shaky start, the current versions of NT - NT Workstation and NT Server - have proved extremely robust, reliable and powerful and, unlike Windows 95, run on a variety of different platforms, not just machines equipped with Intel microprocessors. They are also scalable - they can work with multiprocessor systems. However, it is even more hungry than Windows 95 in terms of hardware requirements - a minimum of 16Mb of Ram is required - and Windows 95 runs older 'legacy' 16-bit applications far better than NT. Corporate confusion over which operating system to pick is apparent in a recent Forrester Research survey among US companies. Forty-five per cent told the research firm that they would go completely

to Windows 95, and 14 per cent reported choosing NT as their desktop standard. An additional 19 per cent said they would migrate to Windows 95, while 22 per cent had not decided between one or the other. Among the comments, one chemicals company told Forrester: 'There is strong competition between Windows 95 and NT. Windows 95 was built with compatibility and has many features NT lacks, but we recognise that NT is a better operating system. However, NT's high hardware requirement is a strike against it.' A forest products company executive told the researchers: 'I see going to NT as bypassing another upgrade path. Even if we don't get the new visual interface of Windows 95, we will have avoided another migration in the next couple of years.' Forrester noted that 'most users do not understand Microsoft's long-term operating strategy.' In fact, Forrester's advice is typically blunt: 'Go to Windows 95. Don't consider NT for the common desktop, and don't stay with Windows 3.1.' Forrester gives the following reasons: Microsoft's desktop operating system strategy will rest on Windows 95; Windows 95 offers lower total cost of ownership; Windows 95 will improve productivity and 'you have no choice.' Neil Holloway, director of organisational sales for Microsoft in the UK, agrees. He says that for most mainstream companies Windows 95 will be appropriate, but for those organisations with the most demanding business uses, Windows NT is the right option and the real alternative to Unix workstations. Either way, he argues that corporate should upgrade to Windows 95 or NT because they need to move to systems that support the 'Win 32' and OLE (Object Linking and Embedding) standards. Both Forrester and Mr Holloway dismiss suggestions that NT and Windows 95 will be merged into a single operating system anytime soon, although Mr Holloway says that features from both operating systems will be added to those of the other. For example, Windows NT will inherit a Windows 95-style interface and some of its management features next year, while later versions of Windows 95 - two projects code-named 'Nashville' and 'Memphis' are under way with releases planned for summer 96 and 97 respectively - will incorporate some NT features. Over time, Windows 95 is expected to be further refined to serve

Continued on next page



The IT Manager's guide to a better life; forewarned is forearmed. This is an advanced warning. Unbeknownst to you, a small furry mascot has fallen down the back of a PC and blocked the fan. The processor is overheating. Now unless you have a Compaq Deskpro with Fault Management, or highly developed 6th sense, you've got about 5 seconds before you have to explain to your MD that...

By Jola Shillingford

■ Interview with Andrew Grove of Intel

Seeking a share of users' viewing hours

"By 1998, personal computers for the home will out-sell televisions to become the most popular consumer device, but they won't look like the PCs we use today."

— Dr Andrew Grove, president and chief executive officer of Intel, the US semiconductor giant.

Intel, which has made its billions from selling faster and faster computer chips, is betting that "the PC will become the communicating PC." Grove predicts that by the second half of 1996, PCs "won't just be multimedia" — combining sound, video and computing. They will also provide:

□ Video-conferencing over standard phone lines.

□ Digital modems for single-line voice and data.

□ Three-dimensional software support for modeling and virtual reality.

□ Digital imaging software support.

□ Templates for creating Internet home pages for the World Wide Web (WWW), a sophisticated graphical interface which allows visual as opposed to simply textual com-

munication. These features will be available on personal computers similar in price to today's multimedia PCs because Intel plans to build many of them into its Pentium Multimedia Extensions — "these chips will give an estimated 20 to 40 per cent improvement in performance (over standard Pentium chips), providing the hottest Internet PC and the best games machine," says Grove.

For example, "a simultaneous voice and data modem (for communications) costs around \$500, but once Intel has packaged many modem features into its chips, a device containing the remaining features should only cost around \$50," he says.

At this price, it would be feasible to include voice-and-data modems in most PCs, enabling them to communicate. Video-conferencing — using Intel's ProShare technology — could also be built in.

Grove believes that commu-

nications and the Internet, the global electronic mail and information network, are "so big, so encompassing, they have the power to transform the way we do business."

He adds that "a lot of so-called 're-purposing' — for example, creating a movie and re-using it — will be tied into communications." And wider availability of video-conferencing and simultaneous voice and data would be invaluable for computer support.

Communications and the Internet are also changing the way Intel does business. Primarily known for chips such as the 386, 486 and Pentium, Intel's move into the modem market, will alarm incumbents.

Grove believes that by helping to lower the price of communications components, Intel will create a bigger market and everyone will benefit — including modem suppliers, even if they are only selling a subset of what there were before.

But the modem market is so fragmented, that Intel — which stopped selling modems last year when prices dropped — will almost certainly benefit more. A few years ago, Intel entered the market for motherboards — the 'guts' of a computer — and now has the larg-

est share. Another Intel Internet project is its InterCast system. This enables home PCs to receive television signals with additional information — about Internet sites — embedded in them. Thus, users might, for example, watch a food programme and be able to click on a symbol that automatically links them up to an Internet site containing the recipes. The link would be made via the user's phone and modem.

The InterCast system is expected to cost \$500 (£330) and be available in 1996. Entertainment companies are collaborating with Intel to provide programming, while personal computer companies will be making InterCast-enabled PCs.

Investment in chip research

The company's ability to develop new products and move into new markets is impressive and necessary if it is to maintain its high profits.

In its latest quarter it made profits of \$931m on revenues of \$4.2bn. Profits for 1994 were \$2.9bn on turnover of \$11.5bn.

Gordon Moore, who co-founded Intel in 1968, developed Moore's law, which says that "in about every 18

months, performance is doubled, and prices halved for microprocessors." Intel's huge research and development (R&D) budget has helped the theorem come true. Its projected R&D spend for 1995 is \$1.3bn.

But its Pentium chips seem to be reaching the limits of what can be achieved with the current generation of PC software. Its recently-launched Pentium Pro processor (previously code-named P6) is twice as fast as standard Pentiums for true 32-bit applications. Yet most PC software is 16-bit; even Microsoft's latest PC operating system, Windows '95, includes some 16-bit code.

To begin with, the Pentium Pro, will be used in high-powered server PCs, such as those used to run networks or provide information on the Internet — an area currently dominated by Sun. The chip will also support symmetric multi-processors, where several processors work together to provide more power.

After doing time in the market for high-powered servers, the Pentium Pro, which runs at 133 Mhz, will become cheap enough to be used in standard PCs — though probably not before Christmas, 1996.

Grove says that among most Pentium PCs, 120 Mhz will become the norm. Pentium Multimedia Extensions will follow, with the Pentium line peaking at around 150 Mhz. The company has also entered into an alliance with Hewlett-Packard to develop new microprocessor technologies, such as 64-bit chips.

Sustaining the vision

Grove's motto is said to be: "Only the paranoid survive" — not too surprising a motto for someone who escaped to the US from Soviet Hungary in 1958, aboard a re-commissioned World War Two ship, full of refugees.

Yet he is more of a risk-taker than this motto might imply.

continuing to pump money into R&D even during recessionary periods. This seems to have paid off. The company's revenues have grown nearly six-fold since Grove took over as chief executive in 1987, and it has risen from 10th place to number one in the industry.

Grove is investing heavily in expanding the company's manufacturing capacity, betting that the company will be producing over 100 million chips by 1998. He is crystal clear about where Intel is going — and very thorough and incisive about strategy. He has a PhD degree from the University of California, Berkeley and lectures at Stanford Graduate School of Business.

Limited competition — the company's chips are used in 80 per cent of the world's personal computers — has sometimes led to criticisms from PC-makers that Intel keeps prices too high. However, Grove's view of the company's relations with others in the industry is pragmatic: "It depends on which company and what stage they are at in their product life-cycle," he says. In other words, if they need Intel, they're his friends.

As its strategy changes, the company may have to seek closer ties, with companies with equally large power bases in entertainment and telecommunications. Yet Grove is already emerging as a key figure in the convergence of telecoms, computing and entertainment. He gave one of the keynote speeches at Telecoms '95 in Geneva, the European 'Olympics' of the telecommunications world. Meanwhile, Vanity Fair magazine has listed him as 'the number seven architect' of the information age, out of a list of 50. Rupert Murdoch is ranked top.

Even his goals extend beyond the computer industry. It is no longer enough for Intel-based PCs to out-sell television sets: by the year 2000, Grove wants users to spend at least 10 per cent of their viewing hours in front of an Intel-based personal computer.

A bewildering choice on the road to Cairo

Continued from previous page

the standard corporate desktop, home, home office and portable markets while Windows NT continues its assault on Unix — a battle Microsoft claims it is winning, particularly in the financial services industry.

Microsoft clearly recognises that the bulk of the \$65bn a year worldwide software market comprises line of business applications and infrastructure software which is currently running on mainframes, minicomputers and workstations.

"The remit," says Mr Holloway, "is to get a healthy share of that."

Windows NT is beginning to chalk up some real successes in this battleground, including the endorsement of Joseph de Feo, Barclays' group technology director, who said recently that it was "difficult to justify the time and effort we have put into an open systems solution that never seems to

arrive." Indeed, Dataquest, the market research firm, predicts that between 1995 and 1999, Windows NT shipments will double each year reaching 15m by the end of the period, considerably outpacing Unix sales.

Microsoft will rely on the next big release version of NT called 'Cairo' to help it achieve this victory. Cairo will be shipped in the first half of 1997 and is described by Mr Holloway as "the evolution of NT which provides locational transparency for end-users."

Cairo versions of Windows NT Workstation and NT Server are expected to be smaller and faster than their predecessor and to include an advanced object file system with the goal of enabling Microsoft to offer "a new distributed computing approach to solving business problems".

■ Readers' views are invited. Write to the FT-IT Review: see address in panel below.



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■ The 1996 programme: Please see the panel on page 10 of the current issue for key themes planned for the FT-IT Review 1996. The next issue will be on Wednesday, February 7, 1996. Copies of the detailed editorial synopsis each month will be available six weeks in advance. For details, contact:

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صكرا من الاصل

The small office/home office - SoHo market

FT-IT 3

Equipment sales

PC vendors forced to rethink their strategies

Within the next few years, global sales of personal computers, driven by home PC sales, are projected to exceed 100m units a year - outselling television sets for the first time, writes Paul Taylor

A surge of interest in personal computers over the past two years has turned the PC into a consumer electronics product, sold in high street stores - and it has forced many of the leading computer vendors to rethink their business strategies.

Leading personal computer vendors, including Compaq Computer, Apple Computer and International Business Machines and Packard Bell, have all developed machines aimed specifically at the home market.

In the US, where most middle-class homes already own at least one computer and a few even have home local area networks, PC sales to the home already account for nearly half of total sales. In Germany, the figure is around 30 per cent.

Home PC sales in Europe are now growing at around 25 per cent a year and are expected to make the current fourth quarter the largest in the history of the PC business as families rush out to buy consumer PCs for Christmas.

Although global PC sales are predicted to reach 100m units in the next few years, not everyone takes such an upbeat view, however. Intelco, an international market research company, argues on the basis of a pan-European survey, that the surge in home personal computer sales is being driven by replacement and second machine purchases, rather than additional market penetration.

The report, published last month, acknowledges that the home PC market is growing, but Mr Miles Thistlethwaite of Intelco suggests that "the home PC boom is in one sense illusory." For the most part, he adds,



FOCUS

HOME AND SMALL OFFICE COMPUTERS

Here and on the following 8 pages, FT writers report on IT applications in the home and the expanding market for equipment, services, software and communications in homes and smaller offices.

personal computer sales in the UK are going to existing users - either as replacement or additional machines.

However, Intelco's research, based on a survey of 16,300 households across Britain, France, Germany, Italy and Spain, confirms that interest in CD-Rom technology is continuing to surge.

Multimedia personal computers equipped with CD-Rom

drives have become an important games platform as well as an 'entertainment' medium for CD-Rom encyclopedias and other electronic 'books'. According to Intelco, one-in-three home PC owners now has a CD-Rom drive and CD-Rom drive-owners have an average of 13 software titles.

In all three main European markets, Germany, France and the UK, CD-Rom use accounts for half of total PC usage - nine out of 18 hours a week.

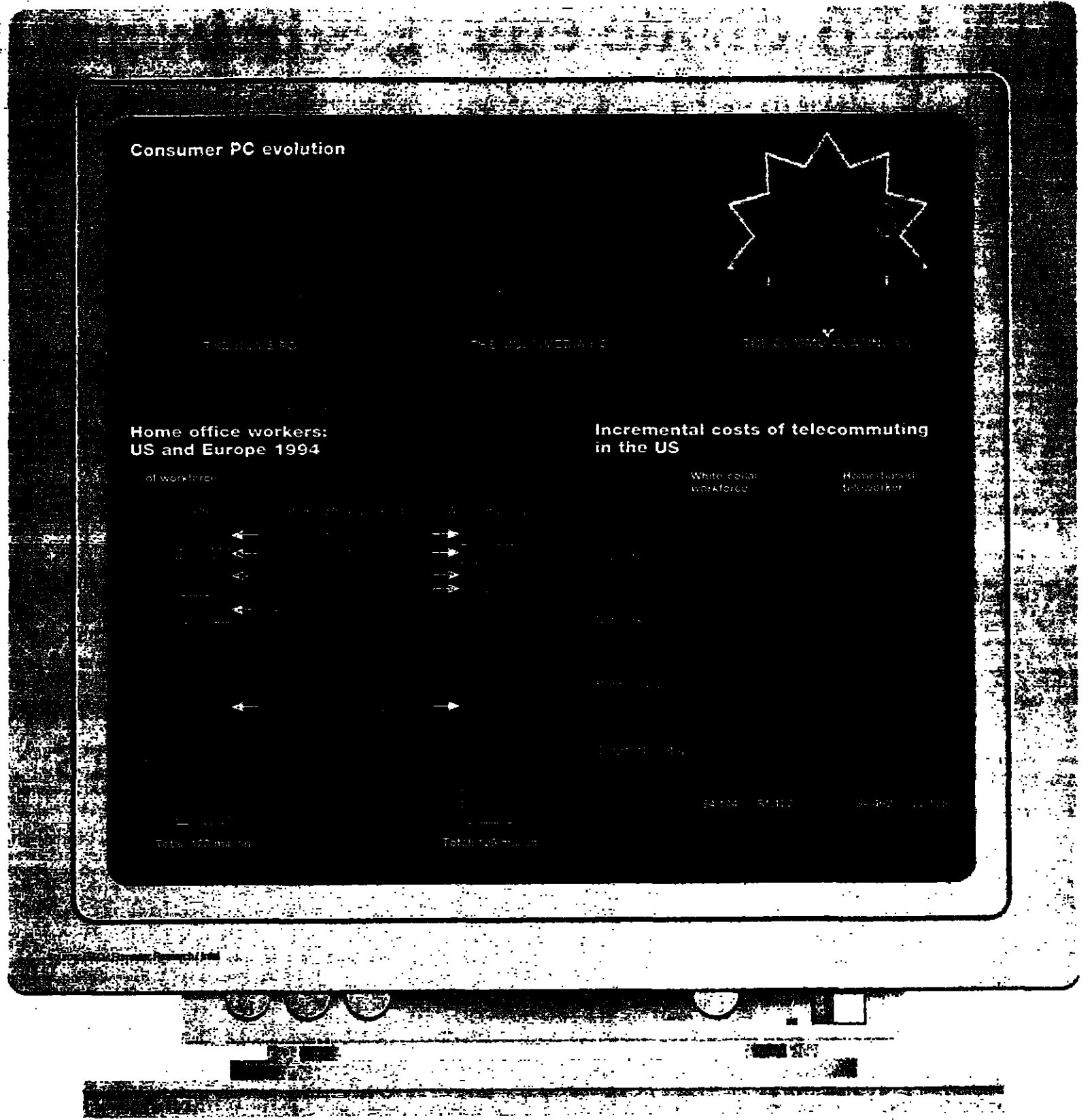
Most new home PCs now feature CD-Rom drives, soundcards and speakers for multimedia, fast Intel Pentium microprocessors and built-in fax-modems for communications.

Intel, the US semiconductor manufacturer whose microprocessors power most personal computers, argues that the consumer PC has evolved in three stages from the basic home PC through the multimedia PC and is now moving towards becoming 'the communicating PC' ready to provide Internet access, video telephony and operate as a PCTV, see illustration, right.

A number of PC manufacturers - including Fujitsu-ICL and Siemens in Europe - have already launched PCTVs: machines which combine the functions of televisions and personal computers in a single unit, although these have had a mixed reception in the market.

Olivetti has gone a step further with its highly innovative 'Envision' machine, a powerful PC which looks like a piece of hi-fi audio gear, plugs into an ordinary television set and can be operated using an infra-red

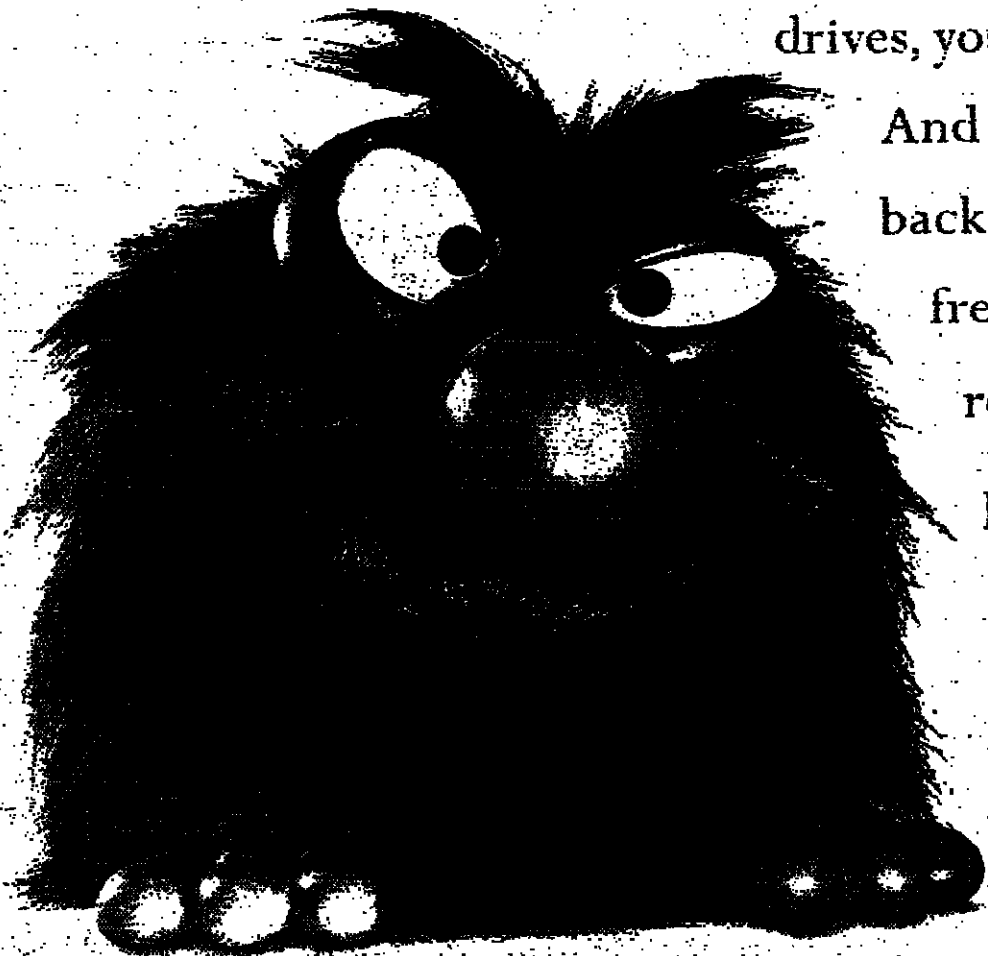
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"A Gonk ate my Processor," hanging your head in shame. It's hardly an excuse that will stand up when your processor lies a smoking wreck on your desk. And yet it can happen to anyone. Two of the most serious failures in PCs are overheating and hard drive failure. And though Compaq can't make a processor proof against acts of Gonk, we can offer you the Deskpro with Intelligent Manageability. Its Fault Management feature monitors health and internal temperature, and warns both user and IT Manager if things go awry. In the case of a thermal fault, the user is warned to close all applications. If heat continues to increase, it shuts down automatically. For hard

drives, you get up to 72 hours warning before failure.

And in both cases, data can be automatically backed up. So with Fault Management, you're free to adorn the top of your PC with Gonks, rosettes and those plastic cars from cereal packets. Sadly, we can't take responsibility for the reaction of colleagues to the appearance of these items, but if that's the only problem you've got, we reckon we've done a pretty good job. **COMPAQ** Technology gone sane.



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A series of enhancements that provide Fault Management. Under Windows 95, the Compaq Deskpro monitors its health and provides early warning of any impending failures. Internal temperature is monitored, and fan failure hard drives give up to 72 hours warning before possible failure. Also, in some cases, the drive can be replaced under Compaq Pre-Failure Warranty before it fails.		
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The Compaq Deskpro is truly "network ready". Integrated high performance PCI Ethernet NIC, IBM token Ring, Modem options.		
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4 FT - IT

Small office/home office

By Tom Foreman in Paris

PC sales help boost on-line services

Continued from previous page

wireless keyboard. The Enviro, like most consumer PCs, also includes a fax-modem device. These have helped fuel popular interest in the Internet and commercial on-line services such as Compuserve, America Online and Prodigy, (see pages eight and nine). In the US, most home PC owners use their machines for household administration, including completing tax returns and electronic home banking, using a modem.

Research from Compaq in Europe confirms that consumer PC-owners are using their machines for a wide range of activities. Mr Toon Bouten, regional director of Compaq's consumer group, says, "the single most important use is multimedia, including education and entertainment." Other important reasons for owning a PC in the home include telecommuting or teleworking, using a modem or a high-speed digital ISDN line - see report, page five.

Compaq's research also highlights that consumer PCs must be easy to use. For example, Compaq home machines present the user with a tutorial and easy interface when they log on, as well as word-processing and spreadsheet software, a CD-ROM based encyclopaedia, and initial subscription to the Compuserve online service.

Software sales

Aside from the computer hardware manufacturers, the surge in consumer PC sales has also benefited software companies such as Microsoft which sells 80 software packages/CD-ROM titles, including its highly acclaimed Encarta encyclopaedia aimed at this market, accounting for over 15 per cent of its sales.

Meanwhile, manufacturers of other types of office product are also turning their attention to the small office/home office (SoHo) market. New products aimed at the home market include low-price colour inkjet printers from manufacturers such as Epson, Hewlett-Packard and Canon, an innovative desktop colour scanner from Logitech, cut price laser printers from Sharp and others, and multifunction devices which combine most of the functions of photocopiers, scanners and printers.

PC architecture

A divide emerges between home and office PCs

Home PC-buyers in the US are choosing powerful Pentium-based systems as users seek more multimedia capabilities

A s millions of new customers buy personal computers for home use, the PC architecture is showing splits between models designed for the home and those for the office - and this divide will become wider.

It used to be that the home PC differed very little from the office PC. It used the same type of microprocessor, monitor and keyboard, but would be bundled with different types of programs. The home PC was also less powerful than an office PC - but now the situation is different.

According to Intel, the leading supplier of PC microprocessors, home PC-buyers are choosing powerful Pentium-based systems and they expect more multimedia capabilities, such as larger colour monitors with fast CD-ROM drives and 16-bit audio capabilities. Office PC buyers are generally more conservative, willing to use

less powerful systems and not willing in most cases, to pay for additional multimedia capabilities.

"I think that over time, you will see a more definite split between home and business systems," says Steve McCleady, vice president and general manager of Intel's Internet Technology Labs. The differences are in communications technologies and also in the types of microprocessors used.

While home PC-buyers are looking to use their systems for entertainment, as well as office work which they bring home, PCs used in the business office are usually engaged in routine work on word processors and spreadsheets where fancy graphics capabilities are not necessary. Home PCs are moving toward the provision of faster graphics, with three-dimensional graphics support, fast quad-speed CD-ROM drives to support games software and 16-bit audio capabilities for CD-quality sound.

NEC Technologies recently announced the Ready Player LE which illustrates this trend toward powerful multimedia home PC systems. It is designed as a computer games platform, as well as for home office use. It runs on a powerful 133 MHz Pentium

microprocessor and includes a six times speedier CD-ROM drive, support for the MPEG-1 digital video format, the new Microsoft SideWinder 3D Pro digital-optical joystick and a 45-watt Yamaha surround system with a "subwoofer".

Intel is working on a new version of its Pentium chip, the P54C which is specially designed to offer improved multimedia support. And it has developed a technology called Native Signal Processing which will allow users to run video and high fidelity sound on their systems without requiring additional specialised hardware.

There are also several chip companies that are developing co-processors designed to make the home PC into a more sophisticated platform for a wide range of services. Chromatic Research has developed the Impact media engine which helps a PC handle 3-D graphics, audio, fax, telephone and video-conference applications. And Philips Semiconductor has developed the TriMedia chip which offers similar capabilities by adding multiple high digital signal processors that can handle multiple streams of digital video and audio.

Microsoft is also supporting this trend, by improving the multimedia capabilities of Win-



Accelerating to the information superhighway: a new multimedia learning programme, 'Easy Tutor: Get Connected 95', an interactive CD-ROM package, costing £20, makes it easier to surf the Internet. Another 'Easy Tutor' programme, called 'Learn Windows 95', designed by CRT Multimedia and costing £40, has already sold more than 100,000 copies

dows 95 with its DirectX technology which improves graphics and sound performance. There are also chip companies developing co-processor chips which are designed to boost PC graphics performance and add communications capabilities for applications such as interactive television and high-speed Internet connections.

With the huge market potential of home PC systems, the

demands of the home user are now driving the development and the direction of PC technologies.

That is not to say that business users will not benefit from the improvements in multimedia capabilities in PCs. Many companies see this as a way of offering multimedia-based training to staff members directly to the desktop over local area networks. And desktop video-conferencing is

another valuable application that is made easier with the new PC multimedia technologies.

Generally, business users are slower to adapt to these technologies and many buyers would rather not pay extra for features that are of little use. But they will have little choice, since the economies of scale dictate that it is cheaper to include multimedia capabilities in a PC than to keep them out.

Distinctions between home and office PCs will be in terms of connectivity: for example, office PCs will have built-in Ethernet networking capabilities while home PCs will feature multimedia accelerator chips, different case designs and faster CD-ROM drives.

Home PCs are more likely to come equipped with add-on cards that allow users to view TV programs through a built-in TV tuner. The trend is to develop the PC into a multi-function device that not only offers the traditional computing functions but also turns it into a hybrid system offering a stereo system, TV, telephone answering machine, video telephone, fax, and video game player.

A recent survey of home PC users by US PC manufacturer Packard Bell shows that young adults between the ages of 25

and 34 are driving demand for these "all-in-one" PCs. According to the survey, this demographic group want "a PC that does it all: They want to watch television on their monitor, access a self-contained stereo system and Internet via telephone and video, with friends and colleagues."

"Young people see the PC as a tool that can satisfy almost any home entertainment and interactive need," says Mal Ransom, vice president of marketing, Packard Bell. "Young adults have also always been the segment of our society that is most open to changes in technology."

About 38 per cent of 1,700 people surveyed want a built-in music system in their PC that can also be used to control all of their stereo components.

US PC manufacturers with strong home PC businesses - such as Packard Bell, Compaq Computer and Apple Computer - are rushing to create increasingly more versatile home PC systems. They are supported by companies such as Intel with its Intelcast technology which allows users to surf the Internet and watch a TV program at the same time. These trends are helping to bring a further split in the architecture of the home PC and the office PC.

Computer printers

Less hassle for home users

Manufacturers are removing the quirks that have so often baffled the owners of small office printers

Mankind does not have a happy relationship with computer printers. Persuading a printer to recognise commands from a PC keyboard and produce a sheet of paper that mirrors the image on the users screen has often involved prolonged bouts of cursing. Yet the printer remains one of the most important components of any small office.

Underneath the barrage of publicity surrounding the Internet and the common assumption that all businesses are equipped to handle electronic mail, the printed page has held its ground. The paperless office remains an IT mar-

keting myth. Most people still want a physical document, and printer quality equals presentation.

Canon, the printer giant, has learnt some lessons from consumer dissatisfaction. Its home printer range used to feature a row of minuscule dip switches. A novice user might be confronted with a dozen of these tiny plastic fingers, each of which had to be shifted to one of two positions, using a pen-tip. The precise configuration depended on the computer type, and getting the switches aligned was not always straightforward.

Tim Potter, product development analyst at Canon in the UK, admits that this is outdated technology - users are demanding systems that work as easily as any other consumer electronic product. Canon now builds the dip switch function into the printer's own software. The box that turns digital data into

hard copy has assumed the functions of a computer. The latest Canon small laser printer, the LBP 460, sells for £349 and is described by Potter as resembling "a chubby bread-bin."

It is built to work with Microsoft Windows and features a program designed to allow set-up to take place from the PC keyboard. The hard work of "educating" the printer to "talk" to the PC has been transferred from the customer to the PC processor. Since every PC now contains surplus power, it makes sense to exploit this spare capacity rather than leaving the customer to work things out.

Older PCs with 386 chips will be slowed down by this added burden, but Canon has concentrated on ironing out the quirks that annoyed users of previous generations of printer. Most people who see it are amazed at the zero warm-up time. Waiting for a

display to signal that the printer is ready to work is another psychological block to making headway with office work. These small drawbacks are the very barriers that interrupt a home-worker's day and reduce his productivity.

Canon has put a lot of thought into the world of the individual user. Potter notes that a compact machine is important in a market where space is at a premium. Toner for the laser process that "fires" print on to paper costs £80 for around 2,500 pages with this machine.

Solution

Mike Corley, distribution support manager at Sun Alliance insurance, issues his life assurance consultants with Toshiba laptop PCs and Canon BJ30 portable printers. The consultants want to identify the right financial product for clients while carrying an office in a briefcase.

Sun is buying 600 printers for its mobile workforce and the choice of a printer (using £12 inkjet cartridges) was made after assessing several rival products. This process, Corley recalls, amounted to reaching a balance of capital costs against quality of output.

Colour capability has reached out to the small office printer. Citizen, the \$3.8bn Jap-



Above: The Sharp JX-8200, one of smallest laser printers on the market. Left: Tim Potter, product development analyst at Canon - "users expect printers to work as easily as any other consumer electronic product"

anese precision engineering group, sells a colour inkjet printer for £279. Inkjet technology, also referred to as bubble-jet, involves a cartridge where ink is heated and forced out of a small nozzle on to the page.

Andrew Martin, European group product manager at Citizen, points out that the declining price of printer components has brought sophisticated capabilities within reach of home market. "Five years ago, printers were built like tanks. They needed a lot of metal, but the quality of the plastic available has improved, so we're replacing metal parts," he says.

Automated production lines, assembling parts that snap together with screws, have helped this trend. And the demand for printers has enlarged the market and brought down costs. Volume sales and software, such as

Windows, have driven the market, says Martin.

Citizen's Project 2C can be used with either colour or monochrome cartridges. The difference is price and longevity. Two black and white cartridges cost £5 and should be good for 800 pages. A colour cartridge lasts for 100 pages, and costs £19.

Chris Hill, a research fellow at Nottingham University, has installed a Project at home last year. He uses both types of cartridge - "with colour you have to live with the smaller capacity. But it's very easy to switch cartridges. I use colour for occasional letters," he says.

Re-supply is not always easy. Hill substitutes an Olivetti cartridge when Citizen components are hard to obtain. And Hill admits that the inkjet cannot match his office laser printer for quality or convenience - "but for domestic

users, that's not the point. When I bought it, there was no cost justification for buying a laser for home use."

The market for these products is impressive. Mannesman Tally, the German printer specialist, recorded a 23 per cent surge in UK revenues for the first six months of this year; 1994 turnover was £29.4m. Inkjet sales soared by 83 per cent in the first half of 1995.

This kind of growth is good news for consumers. The cost of high-quality home printing should continue to decline, with lasers - such as Canon's LBP 460 - starting to edge into the bubble-jet or inkjet price category. Whatever the acceptance of e-mail and the Internet, a well-presented printed page remains high on the shopping list of most home PC users. The printer industry can now accommodate that need at a very reasonable price.

You've got 10 seconds to find the file you want. Starting now.

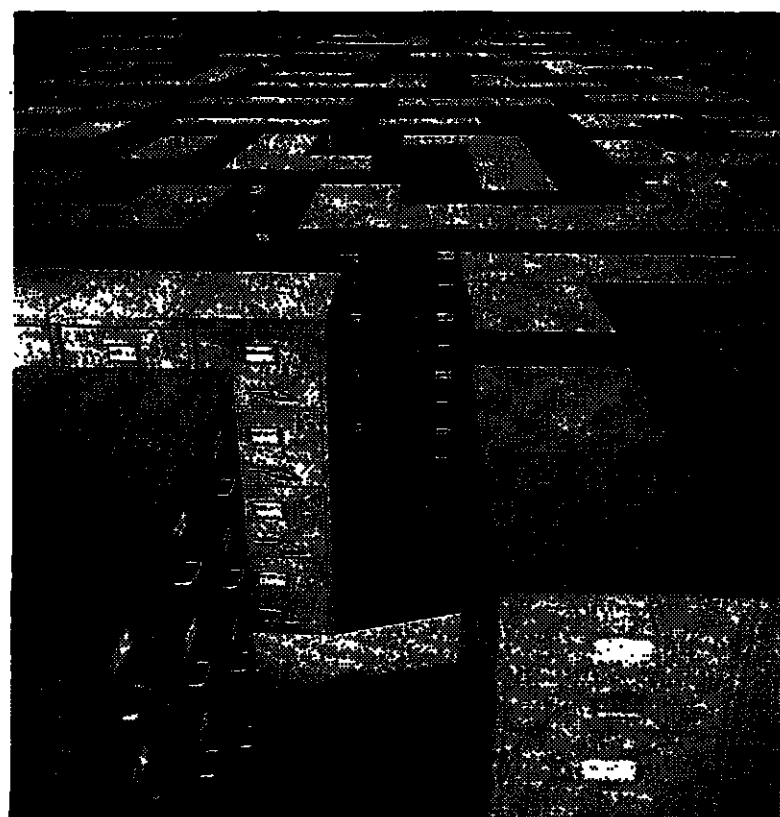
Most of the customer enquiries that come down your telephone line seem relatively simple "What's happened about my claim?" Or, "I wrote two weeks ago, did you receive my letter?" and so on. However the problem for many companies is that they need to search a combination of manual files, archives and computer systems to get a total picture of any one customer before they can give a complete answer. And that can take time and give the impression of poor customer service.

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Communications devices for PCs

Modem demand hots up

The home market is where the action is in the modem market - but many of the older suppliers were late to spot this trend

Demand for modems (communications devices for PCs) has grown on the back of hype about the Internet, the global e-mail and information network. This has brought new suppliers into the European market, such as US Robotics.

When it, and a lot of Taiwanese companies, began selling modems priced for the home, long-established suppliers effectively became "me-too's". They had to expand manufacturing, while bringing down prices, and this caused financial problems for many of them.

Growing competition in the home market is better news for users, however. In Europe, the average selling price of a modem has fallen from \$945 in 1992 to \$375 (£287) in 1994, according to Dataquest. This buys a modem operating at 28,800 bits per second (bps).

Modems operating at half this speed (14,400 bps) still sell in larger quantities to the home market because they are cheaper (£100 - £180) and often come bundled with free access to online services, such as Compuserve or the Internet. This is likely to change in 1996 as suppliers like CompuServe start to offer 28,800 bps access to their services at the end of this year. In fact, any planning to use the Internet for anything but electronic mail should seriously consider buying a modem this speed.

Retrieving images from the Internet is very slow with anything less than 28,800 bps. And phone costs are higher. Andrew Till of Dataquest predicts that demand for all modems will grow 57 per cent in Europe this year as compared with 1994, accounting for 4.3m units. The market leader is US Robotics, with other players including: SAT, Multi-Tech, Creatix, Pace, Dataflex, Hayes, Phillips and Rascal.

Fax from a PC

"Ninety per cent of all modems sold into the home can be used for sending faxes as well as sending or receiving data," according to Till.

One of the most popular PC fax packages is WinFax software from US-based Delrina. This is available for Windows or Windows '95. The Windows '95 version is part of CompuServe 95, a package which includes voice messaging, electronic mail and paging.

By mid-1996, the company says it will be able to turn the user's PC into an answering machine, offer fax-on-demand services and be able flag up any new e-mail, fax or voice messages. The only snag is that you have to leave the PC on all the time.

Voice-and-data modems

Voice-and-data modems have yet to make much of an impact on the home market. These modems allow users whose phones are connected to digital exchanges, to use a single phone line to send/receive data and voice at the same time.

For example, a user could phone Microsoft's helpline to ask about a software bug and

have the software fix sent down the same phone line to his/her PC.

There are two types of voice-and-data modems. Alternating voice and data (AVD), and Digital Simultaneous Voice and Data (DSVD). With AVD, data is sandwiched between gaps in the voice transmission.

This is not a perfect solution and modems providing AVD, such as those made by Radish, do not attract much of a premium (\$50 to \$60) over normal modems.

The latest technology is DSVD. This was first developed by AT&T with their TrueSpeech algorithm, and then by Rockwell with DigitalTalk. AT&T has a chip set that integrates TrueSpeech into Rockwell's a rival chip set.

According to Till: "Rockwell currently has a 75 per cent share of the market for chip sets, but DSVD modems are still too expensive for most home users. A US Robotics Sportster 28,800 modem costs \$300 more if it has DSVD included."

Multi-Tech sells a DSVD modem based on AT&T chips, for a recommended retail price of £289. The modem provides fax, voice, answerphone, data communications and document conferencing, and comes with Windows-based software.

When running the software on a PC connected to the DSVD modem, a user automatically receives data, fax or voice calls on a single phone line. The software detects the type of incoming call and then launches the appropriate software. For voice calls, the software turns the PC into an answering machine.

gets that it could be used for online shopping, where the user sees the goods online but wants to place an order/ask further questions over the phone at the same time.

Until prices become cheaper, the main market for DSVD will be teleworkers (home-based workers) who need to stay in touch with a remote office by phone and computer.

Integrated services

Till calls DSVD the "poor man's ISDN", because it provides some of the same benefits as Integrated Services Digital Network (ISDN) lines without a special line having to be installed. Installing an ISDN line costs £240, while line rental is £24 a quarter.

Data can be transmitted from a PC at high speeds down an ISDN line, and the line can be used for more than one thing at once. For example, the same line can handle voice and data communications, voice plus fax, data plus fax, and so on.

"Take up of ISDN in the home market has been slow except for teleworking applications," according to Dennis Bonnie, portfolio manager, BT Visual Solutions. At Zeneca Pharmaceuticals, BT's Presence ISDN videophones have helped sales managers working from home to co-ordinate the launch of a larger-than-usual number of products.

A new standard, T.120, for manipulating data on a PC while carrying out a videoconference, should boost demand for ISDN, because it will make more equipment compatible.

ISDN could also have a role in connecting home users to the Internet, but not at current prices.

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Small office/home office

Working from home

US sets the pace in telecommuting

By next year, ten million workers in the US will be working from home

Another million Americans will begin teleworking - or telecommuting, as it is usually known in the US - in 1996. This is the prediction of the government-backed *Telecommute America!* campaign. These new telecommuters will join a growing army of 9m Americans who already work from home, using their computers and modems to make it possible.

The campaign was launched this year to promote awareness and understanding about working-from-home and local "satellite" offices. Among the campaign's members are the Association for Computer Transportation; AT&T, the telecommunications giant; also the US Department of Commerce; the Department of Transportation; the US Environmental Protection Agency; and the US General Services Administration, GSA.

Precise definitions of tele-

commuting, teleworking and home working vary, according to the amount of time worked at home each week and the types of equipment used. Thirteen per cent of the US workforce work at home occasionally, compared to only eight per cent in Europe, according to the latest figures from the European Information Technology Observatory, Eito, based in Frankfurt.

In the US, there are also higher expectations about working at home than there are in Europe, adds Eito. In the US, analysts predict that the number of people working in home-based offices will increase by more than three per cent a year, compared to only two per cent in Europe. Workers in the US have "a much higher acceptance of the need to be adaptable, to be multi-skilled, even having careers with several employers - often simultaneously", but in Europe, says Eito, "workers tend to look to governments to provide safety nets in times of rapid change".

Home office workers are defined by Eito as those who work at home for one to two five days a week, during normal working hours. They may

be self-employed or working for an employer. Teleworkers are similarly defined, but they also use equipment at home to support business data communications. On this definition, the US has 650,000 teleworking offices, compared to Europe's 410,000, estimates Eito, whose members include CeBIT, the information and communications technology trade fair in Hannover, plus leading suppliers in European ICT industry.

In the US, Robert Johnson, director of the General Services Administration, says that teleworking provides many "hard and soft" benefits to the government in terms of real estate costs, worker productivity and employee satisfaction. He cites the federal government's plans to establish telework centres throughout the US to enable employees to telecommute from "satellite" offices. Johnson reveals that more than 60,000 new federal workers will be encouraged to telecommute in the next three years, joining the thousands who already work this way.

"It is an important strategy to achieve a government that works better and costs less. It does this by reducing the costs for government agencies and

improving customer-service for taxpayers," he says. "Telecommuting also helps employees to better meet their family needs and to spend more time with their children."

In the US, the government is not the only supporter of telecommuting: high technology companies such as AT&T are enthusiastic about the idea. AT&T vice president Keith Springen says the company employs 47,000 telecommuters.

'Information technology enables many employees to work anywhere'

and "virtual office" workers - and was one of the first companies to enact a formal telecommuting policy. "Today's information technology enables many employees to work any time, anywhere," says Springen. "Employees report increased productivity, reduced stress and greater flexibility in balancing their work and personal lives."

Faith Wohl, director of the

Office of Workplace Initiatives in the GSA, comments: "Executives from business and government now depend on telecommuting as an important way to reduce costs and to maximise their return on investment in employees."

"Millions of Americans and thousands of employers are making telecommuting work - for employers, employees and society."

Campaign researchers say that two-thirds of the companies already have telecommuting plans, with 60 per cent of the other companies hoping to put such programmes in place within the next three years.

Executives involved in telecommuting programmes are almost unanimous (94 per cent) in agreeing that this mode of working brings benefits, citing cost-reduction, increased productivity and improved employee morale.

The study, conducted in the past month, also reports that two-thirds of companies surveyed among the *Fortune 1000* list now have telecommuting programmes, half of which were instituted in the past two years. The majority expect these with programmes to expand.

"Private and public sector employers may initially have established their telecommuting programmes to meet environmental requirements or to help employees balance their work and family needs," adds Faith Wohl. "But in the process, they discovered its benefits to the bottom line." The growth of telecommuting suggests that business and government now depend on it as an important way to reduce costs and to maximise their return-on-investment in employees."

But despite the expansion of these programmes, barriers persist to more widespread adoption of telecommuting. Some businesses fear a lack of management control and a loss of the team concept. Staff also worry about adjusting to work at home, away from the daily interaction with other colleagues. However, two-thirds of the companies surveyed are attempting to address these issues through training and policy development.

Susan Sears, a founding committee member of *Telecommute America!* and president of the Telecommuting Advisory Council, says that management education "has proved very valuable in overcoming



In the US, telecommuting is far more popular than in Europe

supervisors' fears about telecommuting."

Through education, "managers learn to manage by results, instead of observation," she adds. "They learn to identify employees with skills and jobs that are well-suited to telecommuting. Telecommuting isn't for every person or every job. But while it is estimated that 60 per cent of today's workers could be telecommuting, only about 10 per cent are doing so. There must be many more employees who could perform their jobs as well - or even better - when given the opportunity to telecommute."

It appears that government supporters of telecommuting agree - "there are plenty of barriers, in the form of attitudes and myths, to telecommuting," says Faith Wohl, at the Office of Workplace Initiatives. "Our job with *Telecommute America!* is to educate employers on the kinds of jobs that lend themselves to telecommuting and on how to set up a programme for those employed in these positions so that employers, employees, families and society reap the benefits."



Teleworking in the UK: a homeworker, above, using a combination of digital dictation technology by VDU (UK), of Woodley, Berkshire is working for Britain's, the UK's sixth largest building society which has instigated an efficient teleworking facility. By utilising low-cost telephone lines, audio information from the society's Leek HQ is downloaded automatically each night to computers of home-based typists. Transcribing work is returned, via a modem, to the originating centre for printing

Home telephony

Buyers become more selective

A look at what's new in cordless phones, 'mobiles' and pagers

In today's evolving information society, the home office worker is spoiled for choice when it comes to telephony equipment. Deregulation and the move from analogue to digital technology also heralds a fast-growing range of competitive telecom services to benefit the home user.

In Europe and Japan, the markets for mobile phones, for example, will more than double by the end of the decade, while in the US the number of subscribers will increase from around 35m today to nearly

60m by the year 2000. By then, 350m mobile phones are likely to be in use worldwide.

Even the humble bleeper is finding a new lease of life, with big initiatives being made in both consumer and business sectors, spurred on by the new 'calling party pays' concept - see details below. But there was a time, in the UK, for instance, when buying a phone meant a visit to just one supplier: British Telecom. Now, BT's customer-base has fallen for the first time as users shop around for the best deal.

The new 'telephone-savvy' customer may have a cordless phone, a mobile, a pager or even a cable TV contract for telephony. The cordless phone, which

allows users to make and receive calls anywhere in the house, now looks like old technology. But there have been improvements. Phones, such as SouthWestern Bell's F900, offer eight channels for communication between the phone handset and the base station. This means that if sound quality is poor when making or receiving calls - or there is interference from a neighbour's 'cordless' - the phone will switch to another of the eight frequencies.

The phone also comes with a second, smaller base station. This could be kept in an upstairs room, so if you are not carrying the handset when the phone rings, you do not have to rush downstairs.

The F900 costs £169.95 from Dixons, the UK high street retailer. Cordless phones with fewer channels cost less, and prices are falling. BT's Freestyle 80 with two channels is cheaper - at £79.99 - than its previous two-channel model. Another 'new BT' cordless phone, the Freestyle 1000, combines a cordless phone with a digital answering machine that records calls straight on to a chip. This has an intercom facility between base station and handset and costs £159.99.

Japanese solution

In Japan, the Personal Handphone System (PHS) bridges the gap between cordless phone and mobile. PHS phones

are designed to be used mainly in the house, or in the neighbourhood as mobiles.

They do not require as dense an infrastructure of base stations as cellular networks used by frequent travellers. This lowers the cost of PHS and makes it ideal for the mass market. There are already three PHS services in Japan.

Bryan Van Dusen, senior analyst at the Yankee Group Europe, says PHS "has really taken off" so handset prices are low, too. PHS is a brand new technology and the Japanese are hoping to export it to densely-populated cities in

Continued on next page.
Screen-based telephony: see next page.

Look at all the distributed computer systems.

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Look at all the people needed to manage them.

Look at all the duplication.

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■ Screen-based telephony

PCs may soon answer the phone and take a message

Joia Shillingford looks at the new services for the smaller office, ranging from screen phones to desktop call centres

Until recently, using anything more complex than plain old telephone services was cumbersome for the home user. But a new generation of screen-based phones is making value-added phone services easier to use.

BT, Nortel, Ascom Telecom and Philips all sell telephones with screens which make it simpler to use new services like Caller Display, which flashes up the number of each incoming caller.

They also make it easier to use some of the slightly older ones such as 'Call Waiting', which tells you when someone is trying to get through if you are already on a call.

Users without special phones have to key-in barely memorable strings of numbers/symbols if they want to use these services. But a screen-based phone either comes with a menu of different phone services, or can be programmed to include one.

For example, BT's Relate 1000 (£89.99) displays the phone numbers of the last 20 callers as well as making it easier to use other BT services. It is also planning to bring out a new Caller Display phone which will give you the numbers of callers who are waiting to get through if you have the 'Call Waiting' facility.

Nortel's Excella 1000 for the residential market, stores up to 15 incoming callers' names and the company says that programming it is for enhanced phone services is straightforward. It is also working on a digital 'Caller Display' answering machine.

Philip's screen phone goes a step further and includes a pull-out keyboard. It is designed mainly for home banking or interactive shopping applications.

Called the P100, the phone was originally designed for use by Citibank's home banking customers in the US. UK home banking customers of Citibank will soon be able to use the phone for a variety of tasks including bill payment, money transfers, getting an up-to-date balance and so on. Tesco's 24-hour home delivery wine service will be offered as well.

The wine service uses interactive voice technology, so users are given a list of options verbally. However, because the screen phone conforms to the ADSI (analogue display services interface) standard, the verbal information is also converted into text and displayed on the phone. This makes it easier to choose between a list of prompts (for example, 'press 1 for red wine, press 2 for

white wine, press 3 for champagne') because all are presented on the screen at the same time.

In addition, the phone has a smart card reader to provide extra security for home banking customers, and it can be programmed to work well with value-added services.

In the UK, BT and some of the other telecoms operators offer enhanced phone services. BT's are called Select Services. Some, such as 'Call Barring', and 'Call Diversion' are self-explanatory. 'Call Minder' is BT's network-based voice messaging/answering system. This records messages when you are out, not answering your phone, or on a call already.

Value-added phone services

When launched next year it will cost £5 a quarter. If you subscribe to Call Minder, you cannot use Call Diversion, though BT hopes to overcome this technical constraint.

Other services include 'Call Return'. This is similar to 'Caller Display' but you just dial 1471 to get the number of the last person to call even if they didn't leave a message. As with 'Caller Display', there are some numbers which do not get recorded, such as those which have been withheld by typing 141 before the phone number. Mercury has a service which lets customers say which cost-centre they want to charge a call to. This is useful for people who want home and business calls to be differentiated on their bills.

In the US, there are some other value-added (or Class) services including: 'Repeat Dialing', which keeps calling a busy number until the connection is made; 'Distinctive Ringing', which enables users to differentiate between business

and personal calls; and 'Selective Call Forwarding', which allows the subscriber to pre-select certain numbers to be forwarded to another number.

Some Select Services, such as 'Call Return' (which gives you the number of the last person who called) are free. Others cost up to £5 a quarter. But Craig Thomson, Class manager, BT Select Services, says: "BT is looking at offering more package prices, where users get a discount for subscribing to more than one service."

The Boston-based Yankee Group reports that in the US some telecoms operators are selling services on a per-use basis. This attracts infrequent users who may end up using the services more once they've tried them.

SDX Business Systems, a UK-based PBX (private branch exchange) maker sells a special phone that plugs into the serial port of a PC as well as into the telephone network. Called 'Spot' (smart plain ordinary telephone), it enables users to control the phone from their PC screen. For example, home (or office) users with personal organiser software or a contact management database, can dial contacts straight from the PC. The phone works on standard



A recent survey in the US shows that for many frustrated home PC-users, the most useful thing the PC could do is to answer the phone and take messages - a technical dream that is fast becoming a reality

analogue phone lines and can be used hands-free with its internal speaker. The under-\$200 PC phone also provides voice mail/answering facilities. Speech can be recorded on the PC's hard disk and replayed through the phone, with a little help from the Windows-based voice mail software sold with it. Inside the phone is a data and fax modem that works with most data communications and fax software.

Other products, which help turn a PC into a personal call centre include Creative Lab's Phone Blaster PC expansion card: an all-in-one phone management system, and Delrina's CommSuite software.

For teleworkers, GPT Communications has launched a package of products and services that can link home users to their company network via ISDN (Integrated Services Digital Network). The package also allows home workers to display all messages (voice, fax, electronic mail) left for them at company HQ, on a single screen. According to Paul Fortescue, connectivity specialist at GPT, the first user is Smith-Kline Beecham, which has put an ISDN link in a West End suite used by staff who have just flown in from the US.

There, they can check their messages without going directly to the office.

A survey of 300 customers by the US-based home PC company Packard Bell, reveals that the most important household job a PC could perform for them was to answer the telephone and take messages. That day is fast approaching.

For the user who wants to feel that he/she is at the helm of an advanced call centre - even when working from home, a number of products are available.

SDX Business Systems, a UK-based PBX (private branch exchange) maker sells a special phone that plugs into the serial port of a PC as well as into the telephone network. Called 'Spot' (smart plain ordinary telephone), it enables users to control the phone from their PC screen. For example, home (or office) users with personal organiser software or a contact management database, can dial contacts straight from the PC. The phone works on standard



Internet access: Rascal's new DAP 6300 terminal adapter for PC modem replacement provides Internet access and greater productivity for small office/home office (SOHO) users by exploiting the caller line identification (CLI) facility. Its battery back-up also allows PSTN lines to be replaced with ISDN links

■ PC performance

Home PC users learn new data storage techniques

Power-hungry software makes PC users far more demanding in their choice of storage system

Only a few years ago, home office workers relied entirely on a PC's tiny main memory, a low-capacity hard disk and a few 'floppies'. Now many PCs have very large main memories and high-capacity hard disks supported by a CD-Rom (Compact Disk Read Only Memory) drive. Soon many more of them will also have tape backup devices; and in a few years some will own rewritable disks.

SoHo (Small office/Home office) users vary widely in their choice of storage systems, depending on their level of disposable income and whether they see themselves as entry-level users or 'power' users aiming to deploy complex multimedia applications.

The latter have begun to move from dual to 'quad'-speed CD-Roms and will shortly move on to six-speed devices to gain better performance from their PCs. Sharply falling prices for CD-Roms last year and this year have turned them into a standard PC component.

These disk drives may be brought into play for displaying graphical data, smooth contouring of images or inserting full-motion video clips into windows.

The six-speed CD-Rom option is considerably more expensive but may be attractive to the increasing number of home users who want to handle their applications in a more professional way. Users need to be ready to cope with a multiplication of the density of data on CDs, which is set to rise tenfold in the near future.

Some home users are ahead of office users in terms of data storage partly because the computer games which are popular in the home are far more storage-hungry than simple business applications, such as word-processing. Also, home



Expanding the system: the Desk Station IV provides Toshiba's A4 notebook range with all the connectivity and expansion options of a desktop computer

PC users have to be self-sufficient in memory, whereas office users increasingly tend to rely on remote servers to supply data when needed.

Most home users who upgrade from 286-chip or 386-chip PCs to 486s or Pentiums will experience an enormous increase in the size of both their main memory or RAM (random access memory) and their hard disks. Many will acquire eight megabytes of RAM, but even that may be too little in the near future. As Chris Herbert, senior PC analyst at the market research company Romtec points out, "this is sufficient for Windows 95 [Microsoft's new operating system], but it depends how hard you thrash it."

Microsoft claims that Windows 95 can be run on only 4MB, but many users may find they need 12MB, he warns. The appearance of 32-bit applications running on Windows 95 will increase the amount of storage capacity needed, perhaps dramatically.

They will generate much larger databases which will require correspondingly faster searching - "go as high as you can afford because eventually you'll find you need more than you thought," advises Herbert. Users are often replacing

60MB or 80MB hard disks which seemed more than enough, three years ago, with disks holding as much as 800MB. Compaq's Presario multimedia PC starts with 420MB, but there are now few machines that have anything less than 540MB.

According to Joe Jura, European storage analyst for the market research company Dataquest, by the middle of next year 1.2 gigabytes will be the entry-level for hard disks. For mid-range disks 2GB will be normal, while at the high end 4GB will start to become common for power users in the home office.

Home users include not only the growing number of self-employed but also those who take home work from their company's offices, often on notebook PCs. These people increasingly want the same technological facilities at home as they are used to at work.

Among the trends of the next couple of years is likely to be a growing take-up of tape drives in the home office. These will be widely used for backing up data, as more users become aware of the value of their data and the risk of losing it.

They will also use tape systems as a second level in a hierarchical storage management (HSM) system, copying what is now common practice in corporate computer systems. Most frequently-used data will continue to be kept on hard disk for fast access, while less-used data is relegated to tape. Adam Thew, European product manager for personal storage at Hewlett-Packard, says new software will soon enable PC users to save data straight to tape.

Prices for quarter-inch DC2000 and 0.315-inch Travan industry-standard tape drives are falling fast; so devices which can take 400MB of uncompressed data are coming within the budgets of many home users.

The use of floppies which typically hold up to 1.4MB is more and more limited by the increasing size of the files which need to be kept, many of which are far bigger than a floppy can hold.

Joe Jura of Dataquest foresees that tape will also be more widely used for archiving of data retrieved from the Internet. Rewritable compact disks are not yet an established technology and look unlikely to make much impact within the home user sector for the next three or four years.

Rewritable magneto-optical (MO) storage, combining magnetic storage with laser reading and writing, is not likely to appeal to the self-employed in the foreseeable future, according to John Goodyear, European marketing manager for manufacturer Fujitsu. MO storage is too expensive and has too application which is likely to compel them.

But for business people working partly from home, he says, a rewritable MO disk could become the best way of transporting large amounts of data between home and office. An MO disk, costing around £20, carries 23MB or about the equivalent of a three-drawer filing cabinet.

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IT festive goodies

By Louise Kehoe in California

'Tis the season to go shopping

... and the chances are high that you will find a home computer user on your list this Christmas

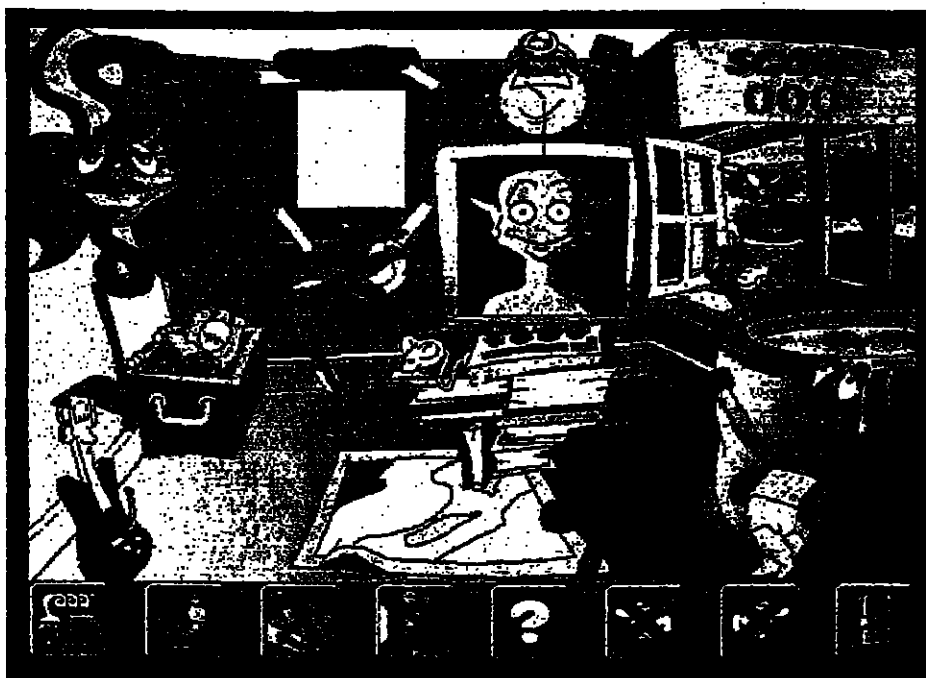
Shifting from office to home use, the personal computer has become a staple consumer electronics product, installed in more than a third of households in the US and UK.

Finding the right gift for the PC user can, however, be a bewildering experience. Most home PC purchasers say that they are buying a new PC to ensure that children have access to the latest technology, or because they plan to work at home.

This might lead benevolent relatives and friends to the computer store isles of educational and "personal productivity" software in search of the perfect Christmas gift.

In the education category, top sellers include Mavis Beacon Teaches Typing, from Mindscape, addressing the most basic educational needs of any PC user. For children, the latest Math Blaster program from Davidson is a sure fire success. Using the ruse of games that blast rocket ships and search for lost dogs, the Math Blaster series makes arithmetic drills seem like fun.

Another favourite group of "educational" programs is the



In the US, more than 50 per cent of children under the age of 12 use PCs, at least part of the time, to play games. Pictured here is a scene from *ADI School*, by Sierra On-Line. This "educational" game is described as a "teacher and friend" for four to 15-year-olds.

"Sim" series which includes *Sim City*, *Sim Town*, *Sim Live* and others, from Maxis. *Sim City*, the classic, appoints the user as the developer and all-powerful ruler of a new city where he or she can build residential, industrial and public facilities. The player must balance the interests of existing residents against the potential for new development and cope

with unexpected disasters such as earthquakes or floods.

It has often been suggested that *Sim City* should be included in 'basic training' for prospective city administrators and politicians. In the meantime, it provides the rest of us with a glimpse of the complexities of city government.

In the personal productivity segment, *Quicken*, from Intuit,

is a "must have" program for the head of any household. It enables the user to organise personal finances, pay bills electronically, keep track of loan payments and analyse spending. The latest version of *Quicken* also provides links to accounts at several banks, enabling customers to update activity in their accounts online. *Intuit* is also expanding its personal finance program portfolio to include advice on issues such as retirement planning, insurance and college finance.

For families, *Print Shop Deluxe* is another favourite. With a colour printer, users can quickly produce greetings

cards, invitations, banners, certificates, business cards and many other types of documents using built-in graphics.

A new category of software that is proving increasingly popular is maps. Top sellers in the US include *Street Atlas USA* from DeLorme Mapping and *Automap Road Atlas* from Microsoft.

Another software fad among home computer users is the "family tree" program. Grandparents may find a mutual interest with their offspring in putting together a family genealogy using, for example, *Family Tree Maker Deluxe* from Banner Blue Software.

Yet for all of the high-minded talk among PC buyers about education and work, the top-selling PC applications are games.

A recent survey of US home computer users conducted by Packard Bell, a leading US PC manufacturer, found that 56 per cent of users said they want more games and 35 per cent said they want more entertainment software.

More than 90 per cent of children under the age of 12 use PCs, at least part of the time, to play games. The numbers of PC game players decline somewhat with the rising ages of users, but more than two thirds of adult male PC users acknowledged using their computers to play games and more than half of retirees who own home computers also cited games as one of their uses of the machines.

A new generation of PC games is available this Christmas that is designed to take full advantage of enhanced multimedia features of the latest PC models and the "plug and play" capabilities of Microsoft's new Windows 95 PC



Top seller: *Phantasmagoria* - a chilling new thriller from Sierra On-Line - the world's first computer game to feature a censorship "gore button". This option allows adult players to censor out most of the gruesome scenes, so that it is more suited to play by the under-18s. *Phantasmagoria* is one of a new generation of interactive movies that are more like films than conventional computer games.

operating system.

A sure fire winner is *MechWarrior 2*, from Activision. A new version of the top selling combat-simulation game featuring three-dimensional graphics and enabling multiple players to compete simultaneously has been launched for use with Windows 95. Activision is also offering *Windows 95* users a touch of nostalgia with collections of the "golden oldies" from the era of Commodore 64 PCs and Atari 2600 videogame machines.

Myst, a PC mystery that defies the logic of anybody over the age of 16, is not so much a game as a cult. The Broderbund Software program has been one of the biggest PC games for the past year.

Phantasmagoria, from Sierra On-Line is, without doubt, however, the hit of the moment.

Launched in late August in the US, the program grossed \$12m in the first week of release, selling 300,000 copies.

A "nightmare fantasy", the game, contained on seven CDs, includes over 1,000 3-D backgrounds, more than two hours of full-motion video and a cast of eleven characters.

Players assume the role of Adrienne, who, with her husband, Don, has moved into a haunted mansion. Players must unravel the mystery surrounding the house and combat the evil forces that hold her husband in its icy grip.

While games like *Phantasmagoria* are suited only to those old enough to spell the title, some PC users may reject game playing as kids' stuff. The PC activity for all ages is the Internet, the global network of computers where mil-

lions of PC users are tapping to send electronic mail, find news and explore the vast resources of the World Wide Web.

To equip a PC for cyber surfing, start with a high-speed modem 14.4 kilobauds is standard, but 28.8 kilobauds is preferable. Software to access the Internet is widely available at little or no charge from online services including CompuServe, America Online and the Microsoft Network.

A year-long subscription to one of these services, or to a local Internet access provider, will keep most PC users busy for many days to come. Costs for basic services range from about \$10 a month but may rise to \$40 a month, depending on usage. While it is not cheap, introducing a PC user to the Internet may be the gift of a lifetime.

Game consoles

By Tom Foremski in California

Stakes are raised in the video game market

The convergence of technologies in the home indicates that video games systems may evolve into set-top TV boxes that will also control interactive TV services

A new generation of video games consoles is emerging that offer impressive 3-D graphics capabilities and promise to usher in a host of exciting games - but the number of different and incompatible platforms is likely to confuse buyers.

The new consoles feature powerful 32-bit and 64-bit microprocessors and custom chips specially designed for 3-D graphics game-playing. Peek inside a system like the recently introduced Sony PlayStation and you discover technology that is more commonly found in high-end, expensive graphical workstations.

The new wave of games consoles is being led by 3D0-based systems such as those manufactured by Panasonic, Atari Jaguar, Sega Saturn, Sony PlayStation and the soon to be announced Nintendo Ultra-64 video game system. While 3D0, Sega and Sony hope to capture new buyers this Christmas, "the real market battle will be next year, when Nintendo launches its new system," says David Cole, president of US market research firm, DFC Intelligence.

Unlike in the 16-bit games system market where Nintendo and Sega dominate, the new generation of games systems will not have any clear leaders for a while - "this will confuse buyers who are likely to wait until next year to decide which system is best and has the best games," Cole predicts.

Robust systems

The new games consoles signal a trend away from cartridge-based systems in which the game software is stored on chips, toward CD-Rom-based systems, using CD disks. The disks are cheaper to manufacture and can store larger amounts of data. But cartridges offer faster access to that data and are more robust - an important consideration with children. Nintendo, however, says that it will continue to use cartridges for its Ultra-64 system: a choice it might regret.

"CDs are easier and cheaper to manufacture which means that game prices can be cheaper," says Cole. "Sega Saturn games, for example, can be found for about \$30. You can't

manufacture a video game cartridge for that much, let alone produce the games software."

But Nintendo is confident that it can capitalise on the popularity of its earlier generation of games consoles. The company recently announced it has sold its one billionth game - enough to supply one to every teenager on the planet.

Despite the technology claims made by the manufacturers for their games consoles, it is the games themselves that decide which systems will succeed. A hot game can quickly boost sales. And with mostly young males playing video games, fighting games, such as *Virtua Fighter* for Sega Saturn and *Battle Arena Toshinden* for Sony PlayStation, are where the real competition for buyers takes place.

CD-Rom-based games also offer developers greater flexibility in terms of the sophistication of the games they produce. Leading video games developer Electronic Arts, for example, is working on a title that mixes video segments using live actors into the game.

"We just finished shooting scenes for the game 'The Darkening' at Pinewood Studios using well-known US and British actors," says David Gardner, managing director of Electronic Arts Europe. "People are increasingly rejecting computer-generated generic characters. They'd rather see a Sylvester Stallone, somebody real."

But sophisticated titles such as 'The Darkening', increase production costs. Gardner said that shooting the video scenes for the game cost several million dollars. Add to that the cost of programming and the promotion budget and total costs become comparable to that of a Hollywood movie with similar risks of success.

While the new games systems offer increased levels of realism, they come at a price that few children can afford.

Systems such as the Sony PlayStation and the Sega Saturn, for example, cost \$300 in the US and that is without any games. Each game title can cost between \$30 and \$70, again, beyond the reach of most pocket money budgets.

Fortunately for the industry, they are able to reap the seeds

sown in the past - "Sony's target market for the PlayStation is males aged between 18 and 35. There are millions of people who grew up playing video games and they continue to do so as they get older," says Cole.

As more homes buy PCs, the PC platform is also changing into a video games platform. While PCs are five to ten times more expensive than video games consoles, they offer more versatility. Companies such as Creative Technology are developing products that improve the graphics on PCs to make them comparable with those found in dedicated games systems. Creative's 3-D Blaster fits inside a PC and accelerates the systems graphics and adds 3-D shapes. 3D0 is also developing add-on boards for PCs.

Developments

Software giant Microsoft is well aware of the trend and has developed its DirectX technology which allows programmers to develop fast-paced, graphics-intensive games for PCs. However, PCs will lag behind the capabilities of video games consoles - "when you're writing games for a platform, such as the Sony PlayStation, you can take advantage of the custom chips and you write directly to the processor. You don't really have an operating system like Windows that gets in the way and slows things down," explains Tim Glasser, a programmer for San Francisco-based video game developer, 47 Tek.

The trend is for video games consoles to evolve into multi-function devices. Already, the CD-Rom based systems can play audio CDs. This will extend to playing CD-based digital movies and assuming more communications capabilities. Sega, for example, has discussed plans to build an "Internet Saturn" in which players will be able to use Internet connections to download games and play against each other.

The convergence of technologies in the home points to video games systems further evolving into set-top TV boxes that will also control interactive TV services. In this way, the stakes for surviving in the video games market are raised, since the winners will be able to move their installed base into new markets and increase revenues from a range of additional services.

Interactive TV put to the test: see page 10

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Electronic commerce

By Louise Kenne

Internet brings global network to the home-office

'On the Internet, nobody knows you're a dog,' as a 'New Yorker' magazine cartoonist once quipped

With the Internet, no one need know that the 'world headquarters' of a fledgling enterprise is located in the spare bedroom of a suburban semi-detached house, where a would-be entrepreneur has set up his home-office.

For the growing ranks of people who work at home - 'telecommuters' employed by large companies as well as those attempting to get new businesses off the ground at minimal cost - the Internet has become an invaluable business tool for marketing, market research, and communications.

With a 'home page' on the World Wide Web, small businesses can display their wares to millions of potential customers for less than the cost of a single page advertisement in most magazines.

Via the Internet, individuals and small businesses can also gain access to vast amounts of information, from details of competitors' products to free advice on international trade, how to get small business loans or how to write a business plan.

Electronic mail, a staple of the Internet, has become a life-line for the home-office worker, enabling him or her to communicate inexpensively with colleagues, customers and suppliers around the world or across

town. Another, less widely recognised advantage of the Internet is that it is particularly useful to individuals who work at home, is the ability to participate in special interest online discussion groups, sharing experiences and seeking help from fellow 'telecommuters' - or teleworkers, as they are known in the UK: see report, page five.

That first leap into cyberspace is, however, a significant challenge for the home-office worker. Without the support of a corporate systems help desk, or even colleagues who are on top of the technology, the prospect of getting online can be daunting.

For the computer novice, the best place to start may be one of the commercial on-line services such as CompuServe, the Microsoft Network, Prodigy or America Online. These services provide a structured approach to online information, easy to use graphical interfaces and online help for those who need assistance.

While most such services are geared to consumers, rather than business users, they provide access to databases packed with business information.

One example is the Dun & Bradstreet business directory available via Prodigy (Jump: D&B). The database is a directory of more than seven million US businesses including public and privately held companies.

The menu driven service can be used to track down a single company or to obtain, for example, the names and addresses of all the florists in Cincinnati with annual sales of over \$100,000. Another popular online business database is

Hoover's Business Resources which contains information about 1,500 US companies. Less comprehensive files are available for about 6,200 more businesses. Hoover is available on America Online (keyword 'Hoover') and CompuServe (go Hoover).

Since most on-line services offer free trial periods of a month, new users can explore them before becoming a subscriber. Costs then vary according to how much time is spent online, but begin at about \$10 a month.

A subscription will put you on the cybermap with an electronic mail address. The leading online services now also provide 'gateways' to the global Internet.

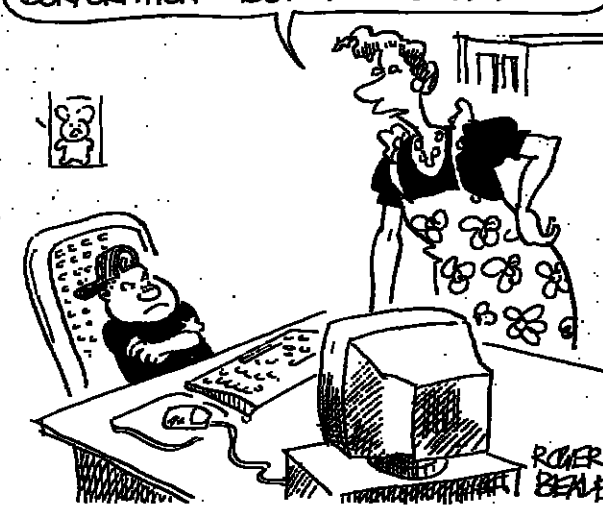
Serious on-line users will probably, however, want to establish a direct-dial Internet account with one of the hundreds of local Internet access providers that have sprung up over the past few years.

When choosing an Internet access provider, several factors should be considered. The price of the service is obviously important, but the availability of a local telephone number to 'log on' to the service may be more significant in determining the overall costs. Quality of service and support also become critical as the home-based worker comes to rely upon the Internet.

Software is another important issue. Some Internet access services provide their own 'browser' software, while others support popular packages such as the Netscape Navigator.

It should not take long for the home-based worker to

YOU MAY BE CHAIRMAN AND MANAGING DIRECTOR OF INTERCALACTIC COMMUNICATIONS CORPORATION - BUT IT'S STILL BATH TIME



recognise the potential of the Internet. Those starting up their own businesses might first, for example, pay a visit to the US Small Business Administration's site on the World Wide Web (<http://www.sbaonline.gov>). While the information at this site is geared to US residents, much applies to businesses anywhere.

Other comprehensive sources of information and advice for people starting out in business on their own can be found at the 'Virtual Home Office' of Soho America (<http://www.soho.org>) and at the home page of the Home Office Association of America (<http://www.hoaa.com>) which claims that 43m people in the US are now working at least some of the time in home-based offices.

Over the past two years, thousands of companies have established 'home pages' on the Internet. To access these pages, you need to know the Internet address or 'Universal Resource Code' (URL). While there is no central directory of the Internet, 'search' systems and indexes can be a big help.

Examples include Webcrawler (<http://www.webcrawler.com>), Yahoo (<http://www.yahoo.com>) and McKinley (<http://mckinley.netcom.com>). Simply by typing in a few 'key words', users of these services

are presented with a list of links to Internet sites that address the topic of interest. 'Usenet' is the next application of the Internet to explore. There are thousands of special interest discussion groups, called 'newsgroups' on the Internet. Finding your fellow carpet importers or freelance writers will also, however, require some searching.

Electronic mail is still, however, the most widely used application of the Internet. For home-office workers it presents the opportunity to communicate inexpensively over long distances. Telecommuters are using e-mail to keep in touch with colleagues and even to follow office policies.

Setting up your own 'home page' on the World Wide Web is the next challenge - see the report, below. There are numerous companies and organisations ready to help, with services that range from designing graphics for a WWW site to establishing and managing the site. While getting on the Net can be a frustrating and time-consuming experience it is an opportunity that few businesses can afford to ignore. For home-office workers it is quickly becoming an essential tool for communications, marketing and market research.

By Tom Foremski in California

Using the Internet

How to create your own web page

Most Internet providers and on-line services now offer users space for their personal web pages

Creating your own web page is surprisingly easy to do if you are content with a simple design and judicious in your use of graphics - and there are plenty of shareware programs and emerging commercial programs that can help.

Personal web pages are a rapidly growing part of the Internet and individuals are setting up web pages at a much higher rate than businesses - 'personal web pages' are another form of content and we will encourage our users to create web pages,' says Robert Massey, chief executive of CompuServe.

Web pages are created according to the Hypertext Markup Language (HTML) protocol which is a series of codes that determine the heading, body text and the position of graphic elements such as photographs. Once a page is marked up with HTML commands any web browser such as Netscape Navigator can display the page.

While there are many shareware applications that help the process, web pages can be created using any text editor or word processor. You start with the plain text, with no formatting. You place the following HTML code at the top of the page: `<html>` followed on the next line by `<title>` inserting the title of the document followed by `</title>`. Then on the next line `<body>` followed by

the body of the text.

Headings are set by placing the code `<h1>` just before the text for the heading followed immediately by `</h1>` which specifies the end of the heading.

The paragraphs in the main text are designated by the code `<p>` after each sentence that you want at the end of the paragraph. At the end of the page place `</body>` followed on the next line by `</html>`. Then save the document as a plain text ASCII file and there you have it, a simple web page that can be uploaded to your Internet or online service provider where it can gain the attention of millions of Internet users.

To preview your handiwork, use a web browser to open the page locally on your PC.

Obviously, few people will be happy with a plain-looking web page, especially since there are many options such as background colour and graphics, photos and other graphic elements that can be added to improve the look of the page. But it shows that creating web pages need not be a daunting task.

Opportunities

If you find a web page you like, for example, you can save that page as a source file then you can open it with a text editor or word processor.

This will let you examine all the HTML codes used and see how the page has been put together and how the author created any special effects.

You could then copy and paste the HTML codes from a variety of web pages into your own page, changing the body text and headings of course, and end up with a magnificent

looking page.

There is also plenty of help available on the Internet. For example, using your web browser point it to <http://www.excite.com> which is the location of the Excite Internet search service from Archtext Software. Type in 'creating a web page' and excite will direct you to dozens of Internet based resources that direct you



Making an impact: page creators can now use stunning 3-D graphics with Silicon Graphics' WebSpace Author system

further to shareware programs and commercial programs that will help you create outstanding web pages.

There is an abundance of shareware programs. Windows users can download programs such as HTML Assistant, HTML Writer and HTMLed. Microsoft offers Microsoft's Internet Assistant and Microsoft Word for Windows Macros that help convert existing formatted documents into web page ready versions. Macintosh

users can turn to shareware programs such as WebWeaver, HTML Editor and AutoWeb.

And before too long there will be plenty of commercial web page authoring tools from a host of companies. Netscape, for example says it will offer web page creation tools in future versions of its Navigator product. There are already several commercial programs

can be used to add real-time data, animation and high-quality audio to web pages. This is probably overkill for a personal web page but it shows that normally static web pages are quickly evolving into dynamic, multimedia presentations.

But why would you want your own web page? For some people it's simply a way of becoming part of the Internet phenomena; for others, it becomes an adjunct to a business card, allowing people to find out more about you. Many people, especially recent university graduates, include a copy of their curriculum vitae among their personal web pages, in case someone wants to offer them a job.

Staying in touch

Personal web pages are also becoming more common within companies. The consulting firm Arthur Andersen encourages its clients to use personal web pages as a way of capturing and retaining information within the company that might be useful to colleagues at another part of the company.

Staff can include white papers on specific topics and detail how a project was handled - all valuable information that can save others from repeating mistakes or reinventing the wheel.

Semiconductor manufacturer Intel, in another example, uses personal web pages to distribute information. A manager would place his progress report on his personal web pages and then distribute the location of that report to staff. They would then view the report directly from the manager's web pages.

Seasonal excuse to jump into the digital future

The purchase of a multimedia PC system is a good starting point. Eventually, the PC will replace the television, the video cassette recorder and the hi-fi system

Christmas is always a good excuse to buy some technology for the home. Sales of televisions, video cassette recorders and hi-fi systems invariably peak in the weeks before Christmas. This year the big seller looks likely to be personal computers (PCs) and associated accessories.

The new wave of multimedia PCs has much to offer home users - both to gain access to new information services via the Internet and to provide a new focus for education and entertainment. Indeed, it seems likely that the home PC will eventually render most other 'electronic devices' redundant.

The trend towards 'digital' information for all media is well under way. Digital audio is well established with Compact Disc (CD), telephone services are fast moving towards digital forms and recent developments in CD technology promise to hasten an age of digital video, see details below.

Although the current generation of multimedia PCs is unlikely to replace the TV, the telephone and the hi-fi, they point in the right direction. The next generation - based on faster chips and higher quality graphics processing - will, however, and 1996 will see the first wave of these multipurpose digital devices start to emerge.

Meanwhile, there is a wide range of accessories and software now available that give some indication of what the

future has in store. Christmas 1995 is an excellent excuse for jumping into the digital future. The multimedia PC is a good starting point. Typically, this will be an Intel Pentium-based PC and will come with a CD-ROM drive, a sound card and speakers.

Suppliers are offering low-cost products to these specifications for home users. Time Computer Systems, one of the biggest UK suppliers, offers a basic multimedia PC for \$999. Gateway 2000 offers a similar product for \$1,099.

For those who already have a standard PC, low-cost multimedia upgrade kits are advertised in the specialist magazines from £200. Another option is to turn your PC into a multi-function telephone 'system'. Creative Labs, for example, offers a product called Phone Blaster for £249. The package provides a voice-mail, answering machine and fax functions through a high-speed modem and a sound card.

Improvements

As the company points out, the cost of buying the individual devices to achieve the same functions would cost nearly \$600. Even if you do not want to turn your PC into a telephone system, there are other ways to improve your use of telephone system. TDS, a UK software supplier, has released a complete directory of UK business telephone and fax numbers.

The directory - called Tele-

power Pro comes on a CD-ROM and costs £49. If you visit London regularly, Instant Access's Street Finder is an inexpensive version of the A to Z guide. For £15.99, Street Finder covers all of central London and includes references to 200 places of interest and a comprehensive guide to London's restaurants.

Instant Access has also signed up discount deals with many of the restaurants included in the guide.

While the main marketing thrust for multimedia software has so far concentrated on games, a wide range of more serious titles is also coming to market. The importance of the multimedia consumer software market is confirmed by moves from large companies like IBM and Walt Disney. IBM launched a range of CD-ROM titles for the PC in the £40 price range in time for Christmas.

In addition to the usual games, American football, War Games and so on - the range includes educational titles. The Adventures of Hyperman, for example, is an animated cartoon adventure game which comes in the form of a puzzle. This must be solved by referring to various scientific data hidden in the program - such as how to fly a balloon and defuse a bomb.

Peter and the Wolf, another IBM CD-ROM title, introduces Prokofiev's famous music and classical music in general by using cartoons and audio. Children can explore the instruments of the symphony orchestra by navigating through a colourful graphical interface.

Walt Disney's CD-ROMs, priced at £44.99, use famous

Continued on facing page

Offensive material on the Internet

By Geoffrey Wheelwright

Ways to protect children from 'Net pornography

US parents can apply products such as 'Net Nanny' to block inappropriate material

Reports about the proliferation of pornography, hate mail and violent words and pictures on the darker side of the worldwide Internet computer network have fuelled a growing demand for tools to help parents control what their children see and hear on the Internet's World Wide Web service.

Providing that they know where to look, it is not hard for anyone - even a computer-literate child - to gain access to explicit, pornographic pictures and videos in high-definition images, with anonymous but obscene text catering to fetishists of many types.

Recent research in the UK suggests that almost half the popular searches for information on the Net are for pornography.

Especially worrying are reports that children have been contacted via bizarre on-line chat groups. But these seemingly 'friendly' typed conversations are originated by paedophile rings and other perverses who seek an on-line relationship with children, hoping eventually to lure them to a meeting outside the home.

Earlier this year, the US Federal Bureau of Investigation concluded a two-year inquiry that led to a dozen arrests and searches in more than 120 homes. The resulting charges related to the misuse of a popular on-line information

service by a small group of individuals seeking to distribute child pornography and arrange sex with children.

In the US, a surprising statistic suggests that children now spend more time using their home PCs than watching TV. Now, IT companies are seeking ways to help parents protect their children from electronic porn.

Microsoft, the software giant, and Netscape Communications, the leading Internet browser software producer, have joined forces to found the 'Information Highway Parental Empowerment Group' in the US to develop technological solutions to this problem. The US Senate is also considering legislation aimed at the same issue.

In California, an enterprising wife-and-husband team has launched a software package called SurfWatch, which keeps track of several hundred inappropriate newsgroups and allows parents or teachers to restrict Internet access.

Trigger words

Meanwhile, in Canada, Trove Investment Corporation, based in North Vancouver, has a product to help parents supervise the way their children use the Net. Known as 'Net Nanny', it is a \$49 software package for the Microsoft Windows or DOS environments that monitors the content of any World Wide Web page before it appears on a computer screen and prevents it from being displayed if the content is deemed inappropriate. If certain words are typed on the PC keyboard, or registered as being received during a data 'conversation', a 'hit' is registered and Net

Nanny will lock up the keyboard and close the system down. Only by using the Net Nanny administration program can the keyboard be restarted by parents (or whoever holds the passwords for the admin software).

The 'trigger words' or phrases used to block a page are selected entirely at the discretion of parents. In addition, the product can be set up to stop the transmission of personal details - such as name, address, phone number or credit card details - so that children cannot inadvertently give out sensitive personal information over the Internet.

According to Graham Heal, manager of business development at Net Nanny, a main advantage of the system is that it is flexible and under parental control.

'Other products have recently popped up on the market which contain an arbitrary list of Internet addresses to material with sexual content, which the developer has deemed undesirable and blocks them - but the list of addresses is encrypted so that you don't know what material is being blocked,' he says. 'We feel that the parent, the school or the employer is the one best-suited to determine what their kids - or employees - should have access to.'

Heal says that sexually bizarre material is not the only offensive information that children may come across on the Internet. Net Nanny also allows users to filter out information on bomb-making, drug-making, anarchist chat lines, neo-Nazi political tracts, on-line gambling and liquor-purchasing, as well as prevent transmission of parents' credit card information.

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Consumer on-line services

An industry in turmoil

As more home PC-users sign up for the Internet, the post-Christmas season could leave many suppliers of on-line services shivering in the cold

The consumer on-line services industry is in turmoil - under assault from a competitor that cannot be shut down, bought out, ignored or easily disparaged. That competitor is the global Internet of computer networks and the World Wide Web service that has sprung up to serve it over the past three years - and most on-line service providers appear to have decided that "if you can't beat it, you have to be seen as a key part of it."

Significant players in the on-line services business, such as CompuServe, the Microsoft Network, Prodigy and America Online, have been scrambling over the past year to improve their connections to the Internet - and to have a presence on it.

And the newest player in the on-line services business, the Microsoft Network, ended up launching itself in late August as both an Internet service provider and an on-line service business - in the hope that it

could be seen as the best way to move on to the Internet.

But it is a tough sell, particularly when local service providers, offering connections to the Internet, are proliferating at a tremendous rate. These local service providers are often better-placed to understand the needs of a regional market and operate with the business axiom of the 1990s: "Act locally, think globally."

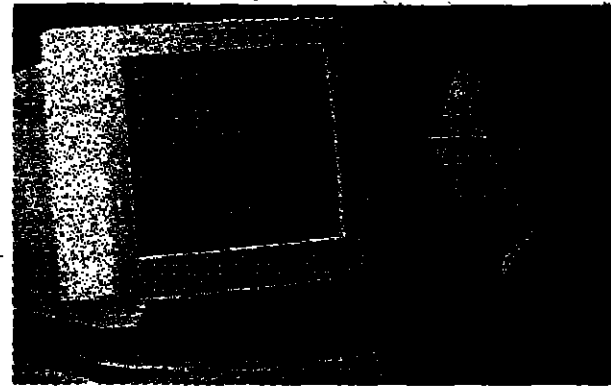
The troubles faced by on-line service providers were highlighted in mid-November with the news that Apple Computer had taken a 5.1 per cent stake in America Online for \$12.5m - despite the fact that Apple operates its own proprietary on-line service, eWorld. There

are now rumours throughout the industry that Apple is getting ready to replace eWorld with America Online services.

The problem facing all these key participants is that they are often now perceived to offer little more than the average computer-user could obtain via straight-forward access to the Internet and the World Wide Web from a local service provider, and they often provide a good deal less.

Most of the leading information providers offering electronic services on the main on-line systems, such as CompuServe or America Online, are now offering similar access via the World Wide Web - or are in the planning stages of doing so.

The only saving grace for the on-line services now is that they offer a tried-and-tested business model for information providers to make money. This is particularly important where on-line business



libraries and clipping services are concerned, as customers can be directly billed to their on-line services account for any surcharged information they wish to access.

But secure commercial transactions on the World Wide Web are not far away - and the established players in the market know that. For this reason, most are trying to re-invent themselves as both publishers of "exclusive" content that cannot be found anywhere else - as well as being premier providers of access to the World Wide Web and the Internet.

On the latter score, the established on-line services companies do have an edge over local Internet service providers. They already have a vast international network of data access lines so that users can gain access to their accounts from most of the main cities in North America for the price of a local telephone call - and then check their electronic mail and use the Internet.



On CampusWorld, illustrated above, announced by British Telecom, is claimed to be the world's largest dedicated on-line education and communication service, designed especially for teaching and learning. CampusWorld provides in-depth curriculum support, downloadable resources and carefully-controlled access to the Internet.

Pictured top left: Leeds-based On-Demand Information provides businesses with a new way of storing, managing and distributing information of any kind - from databases to multimedia applications.

New digital advances

Continued from previous page:

Disney cartoon 'characters' such as Aladdin and the Lion King to front word games and puzzles. More interesting are the Print Studio titles which use the same characters to teach simple desktop publishing. Priced at £34.99, these come on floppy disk. Both the IBM and Disney titles are available through the usual high street outlets.

CD-Rom is also being used for more serious 'documentary' titles. Omnimedia, for example, has packaged up Channel 4 television's documentary on the 'Roswell Incident'. Available both for the IBM PC and the Apple Macintosh and priced at £5, the CD-Rom covers the supposed alien landings in Roswell New Mexico in 1947. It includes the autopsy footage broadcast in the UK on Channel 4 television, earlier this year, and includes a comprehensive set of background notes on the incident.

Flagtower, a multimedia specialist company, has also taken the documentary route with its range of titles. The first in the series - on World War One and the Space Race - are priced at £49.99.

Finally, if stress relief is what you want after a hard

day's multimedia activity, 7th Level's title - Monty Python's 'Complete Waste of Time' - at £49.99 - should do the trick.

High-capacity CD technology

The multimedia personal computer is the first step towards a single device which will handle all digital information and communications. The new wave of microprocessors are powerful enough to cope with digital video, telephone communications and audio.

Indeed, the Intel Pentium and the IBM PowerPC chips have been up to this for some time now. The main barrier to the complete digital device is the storage capacity of magnetic storage and the limitations of CD-Rom.

Neither has the capacity, for example, to hold a full-length feature film. Following an agreement between rival industry groups, led by Sony and Toshiba in October, however, this is set to change.

The agreement sets the scene for a new high-capacity CD technology capable of storing between eight and 30 times as much digital data as current CD-ROM. The new standard will use the current 12cm size

CD format - but will use different storage techniques to increase capacity. The first drives to conform to the new format are expected in 1996.

The drive will be able to read current CDs - whether audio or CD-Rom. It is also expected that they will be available both as read-only (CD-Rom) or in recordable form.

Today's CD-Roms hold about 600m bytes of data which is enough for a short video. The first wave of high density CDs will hold about 4.7bn bytes - allowing over two hours of broadcast quality video to be stored on a single disk.

Later versions are expected to hold as much as 18bn bytes on a dual-sided disk. When established, it is likely that the high density CDs will quickly replace the cumbersome VHS magnetic tape currently used for video.

The agreement between the rival groups promises to avoid a battle between formats as experienced with VHS and Betamax in the 1970s. It will also hasten the day when the PC replaces the television, the video cassette recorder and the hi-fi system.

US buying trends for home PCs and games: pages 4 and 7



ICL, the computer company, has launched 'ICL Commands', which aims to revolutionise the sale and electronic delivery of publications across networks world-wide. In January, Academic Press of San Diego will launch 'Idea', claimed to be the first global academic on-line library service, based on ICL Commands.

Personal digital assistants

By Michael Dempsey

How to be on the move and stay well-organised

The new range of PDAs are being promoted as 'truly portable computers'

If one item of technology can be said to be truly in vogue this Christmas, it's the Personal Digital Assistant (PDA) or electronic organiser. Led by Hewlett-Packard and an indigenous UK success story, Psion, these cheap and ultra-portable machines have shrugged off the outdated tag of "over-priced calculators" and are discreetly taking a healthy slice of business off the portable PC market. Palmtop computers, such as Apple's Newton, are directly descended from laptops, whereas the PDAs have grown out of early attempts to produce a digital pocket diary.

Users have embraced PDAs for the sheer convenience of having a "cut-down PC" that will drop into a pocket and operate on batteries that can be bought anywhere and will last for 30 hours. These systems cost between £100 and £400, contrasting sharply with expensive laptops in the £1,000-£2,400 price range.

The success of recent PDAs has spurred on other players. Sharp, the Japanese consumer electronics giant, has just launched its £399 ZR 5000 range in Europe. Sharp describes the ZR 5000 as a personal communicator. It contains a slot for a communications card that allows the PDA to be linked to a mobile phone or fax.

Sharp has only been in the mobile phone business since November 1994, and a new phone, tailored to the ZR 5000 world is due out shortly.

Clearly, the company sees PDAs as a springboard for other products. Links to printers and PCs come via an infrared device that attaches to the printer or PC, but is not physically connected to the ZR 5000. The thinking here is that individual users can drop into a central office and download a file or print-off reports without bothering to carry around their own cabling and plug. Mobile salesforces, or staff who work from home on a rotating basis, need this kind of facility.

The ZR 5000 operates on conventional AA batteries, known to Tim Champion, European

technology marketing manager at Duracell, as "primary batteries". His company has just made its first foray into manufacturing batteries for laptop computers, referred to as "secondary batteries".

With a four-hour life and a price tag of £100-£150, secondary batteries are very different from Duracell's normal products. Champion acknowledges the limitations of portable computing power, but points out that consumer demand is to blame - "modern portables are expected to equal a desktop PC in terms of capability, so they drain off an awful amount of current. This is very high-performance processing."

The new crop of PDAs were designed to be power-efficient from the start. Small monochrome screens do not drain a battery dry like full-size colour displays.

Keyboard size is one sticking point. It is impossible to provide a full-size keyboard in a pocket-sized system. Apple's £399 Newton dispenses with keys altogether. Data is entered via a plastic pen, and software from Apple and a Russian Optical Character Recognition specialist, Paragraph, converts letters into text. Joined-up handwriting does not qualify, and recognition is not 100 per cent. But with 200,000 Newtons shipped in two years, Apple claims to have a portable data-processor for staff who would be deterred by a keyboard.

Keen user

Steve Cooke is typical of the PDA-user who needs to manage time and data without getting to grips with a conventional PC. Cooke works for British Nuclear Fuels, keeping track of uranium stockpiles. "I'm not one of the world's greatest computer users. But I need something that will allow me to interface with a PC and be an address book, diary and notepad," he says.

Cooke uses a £100 Texas Instruments PS-6900 PDA. It looks like a shrunken laptop, which suits Cooke - "I can drop it into the top pocket of my suit." The TI 6900 has a fraction of the storage capacity of more expensive PDAs, but its 128k memory is right for users who just want to move up from a pocket diary. It is wallet-sized and very easy to master.

Neil MacDonald is vice president of UK computer company ICL's retail trading arm. The smallest product he sells is a £1,200 desktop PC. But MacDonald carries a Psion PDA, and in a previous role, as director of computers and electronic products for the UK high street retailer Dixons, he witnessed the meteoric rise of the PDA.

Psion, MacDonald says, brought precisely the right product to market with its clam-shell Series 3 machines, which have sold 600,000 units since 1991 - "this is a business-related market, it has no attraction to anyone who's not running a working life. But the rise of computer-literate professionals who can see the benefits of storing facts and figures 'on the go' was enough to make a dramatic impact."

Digital choice

At Dixons, MacDonald saw the PDA market boom - "this product-line came out of nowhere. It was beautifully positioned between the PC and the calculator, and more and more people understood the benefits of storing information on a PC, so they decided to burn their ring-notebooks and go digital."

MacDonald forecasts a marriage of convenience between future PDAs and the mobile phone, with one device fulfilling both functions. This opinion is shared at Apple, where researchers are working with BT to outline the future direction of the Newton.

Hewlett-Packard has sold 130,000 100LX and 200LX palmtop computers in Europe in the last two years. This range is being augmented with the £250 Omnigo PDA, and that is destined for a new identity as a communications centre. "The Omnigo 700 will boast a mobile phone-docking station on its lid, allowing users to clip on their phone without messy external connections. This model will be available in 1996 with a phone for a total price in the region of £200."

ICL has no plans to muscle in on this marketplace with its own PDA, but MacDonald emphasises that his PCs to mainframes company cannot afford to ignore the PDA phenomena - "we do have to stay close to these products and understand the market. We must be clear about how PDAs link up with PCs."

Informix's Phil White on AT&T WorldMark Servers.

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25/12/95

The battle for the living room

By George Black

Interactive TV put to the test

Big investments are being poured into research and technology infrastructure

Interactive television could provide a wide range of useful new services to the home office, but at present it would be rash to predict a boom. It remains unclear how many people would use such services, how they would be provided and how they would be made commercially viable. The UK is probably the most advanced market in the world in this field, so there is little to be learned from the experience of other countries. US trials at Orlando, Florida, have had very heavy investment but are reported to be no further advanced than those in the UK. Many large corporations - telephone and cable companies, publishers and broadcasters, film makers and software developers among them - have a financial interest in creating a market in the UK. They are squaring up for what some commentators

have called "the battle for the living room". But they have yet to put together all the pieces to be able to offer these services. Meanwhile, interactive services based on the Internet and other on-line networks are growing so fast that they could have taken a large part of the market before the interactive TV medium has matured. Huge investment is being poured into the UK's technology infrastructure to support interactive TV, but the commercial side of the strategy is still hazy. Experts differ on whether interactive entertainment will drive new business services or vice versa. British Telecom is trying to address these issues in its trial of nine services involving more than 100 "content providers" and 2,500 potential customers in Colchester and Ipswich.

The main aim is to test the financial viability of the proposed services. BT expects to make an initial assessment of the results in mid-1996 but will say nothing about any delivery schedule. It is being challenged by the cable companies, but Mr John Matthews, principal consultant with the Ovum

consultancy, thinks it is powerful enough to stand up to them - "its market share may fall, but I would expect it still to have over half of the home communications market in five to 10 years," he says. The lifting of restrictions on BT's entry into selling entertainment over its network, whenever that comes, should help it to gain more of the business services market.

The cable industry has so far failed to penetrate the UK TV market to the extent it had hoped. Cable companies are therefore seeking to tackle the loss of momentum in their industry by a strategy of consolidation of ownership, joint promotion campaigns, improving programming and increasing telephony subscriptions. However, as Bryan Van Dusen, principal analyst at the consultancy Yankee Group Europe, says: "Cable is an immature industry with an awful lot on its plate and few resources at present to think about interactive TV services." Another interactive TV trial is being run at Cambridge by Cambridge Cable and four consortium partners. This initiative



Sightseeing by spaceball: futuristic tourism is just one of the TV-based home services being developed at BT Laboratories in Suffolk. Here, designer Andrew McGrath uses a spaceball, rather than a remote control pad, to explore the antiquities in a sixth century basilica, created on screen

is widely held to be based on more modern technology than that of BT, making extensive use of ATM (Asynchronous Transfer Mode) telecommunications, and is probably the most advanced of its kind in the world. Like BT's, the Cambridge trial is testing the acceptability of new interactive services. During next year it may become clear what sort of services will be offered to viewers and on what terms. But it may be three to five years before a wide range of services becomes available. Set-top boxes are being provided to the Cambridge trial

by the British company Online Media, a subsidiary of Acorn Computer, which is in turn owned by Olivetti of Italy. Online Media's chief executive Malcolm Bird says that much effort has gone into designing an extremely simple user interface - "people have to be persuaded by a one-minute demonstration that they will be able to cope with it," he says. The interface has been well received by the 100 homes, schools and businesses in Cambridge at present on the network. In his view, the cable companies are building a better infrastructure than BT's for providing interactive ser-

vices, but he notes that this advantage is counterbalanced by BT's much greater strength in the market. All this means that the initiative rests with the Internet access providers, which are fast building up a thriving business while the telephone and cable companies are still at the experimental stage. The latter may fear that they will have invested heavily in an infrastructure only for others to reap the rewards as service providers. Bryan Van Dusen forecasts that the on-line service providers will have built a commercially robust service within three to five years, but it will take BT and the cable compa-

New show planned for IT in the home

A new European trade show for the consumer electronics sector, CeBIT Home, will make its debut at Hannover in August next year, writes Michael Whitshire. The event, which may attract from 700 to 1,000 exhibitors, will be a spin-off from CeBIT, the big annual showcase for the world's information technology and telecommunications industries. CeBIT 96, from March 14-20, will thus become "a more concentrated show, with a stronger focus on the professional buyer," says the organiser, Deutsche Messe AG. The inaugural CeBIT Home, due to run from August 28 to September 1, 1996, will meanwhile target thousands of end-users in the small office/home office market, as well as consumer and home electronics dealers. The range of exhibits will include information technology, network computing, software, services, telecommunications, consumer electronics, media, home automation and security equipment - "an expanding market for home applications has grown up alongside the professional IT business market," says Hubert Lange, a member of the organising board.

The 'partnership' concept in IT outsourcing

By John Kavanagh

Customers need convincing

Outsourcing supplier companies are seeking to woo potential customers into full IT partnerships, but the prime interest of most businesses is cutting costs

Partnership between users and suppliers is being hailed as the future of the computer facilities management business, but so far only tiny numbers of users - or even service companies - are getting to grips with it. Indeed, existing contracts suggest that suppliers have some way to go before convinc-

ing customers. Facilities management has traditionally been the contracting-out of computer operations and software support over a long period. But falling computer costs have made it increasingly difficult for suppliers to continue to squeeze most of their profit out of running the hardware and operations more efficiently. They are therefore seeking to take on system development work, again over a long period - which means promoting the idea of a partnership, if not intimate involvement in the customer's own future.

This shift of emphasis was sharply highlighted in October when a big UK facilities management company, Data Sciences, itself became a facilities management customer by contracting-out its mainframe computer processing operations to a rival, IBM. Data Sciences said it wanted to focus instead on supplying "premium, added-value skills", notably applications software management and desk-top computing services. Another leading services company, Hoskyns, the UK arm of French group Cap Gemini Sogeti, says the rapid changes in both business and technology means traditional facilities management is no longer adequate for customers. "In traditional outsourcing, a customer says to the supplier, 'Do what I was doing, but do it more cost-effectively,' and the

tendering is done on a 'cheapest wins' basis," says Hoskyns director Charles Cox. "This is no longer adequate to meet changing business needs. The high cost and unresponsive nature of central IT facilities, with applications and skill sets based on history, are a major drag on organisations striving for speed, flexibility and value. Business objectives now change too quickly and too often and cannot be enshrined in long-term outsourcing contracts. Companies now have an increasing need to have their portfolio of



John Little at PA Consulting Group: Users still hold traditional views about facilities management and cost-cutting

applications evolved and refreshed to find new ways of using IT to move the business and its processes forward."

He adds: "Users should not try to freeze their current IT set-up in the invitation to tender, or set the service boundary in terms of current functions." However, whether such views are getting through to the market in any big way is questioned by John Little, a senior manager at PA Consulting Group who works on the company's annual IT outsourcing survey. Users still have a traditional facilities management view and look little beyond the possibility of cutting costs, he says. Suppliers, too, are still "immature" in their view of this business, adds Mr Little - "users say that suppliers claim to be pro-active and innovative, but that in reality they're not. As companies outsource more and more IT, suppliers need to develop partnerships between themselves, as well as with the customer. Customers are still having to manage things at a nitty-gritty level, because they don't believe the suppliers are mature enough to arrange the detail between them."

Even the leading service suppliers are not rated far above internal IT departments by end-users. Research firm Input found recently that EDS, a partnership pioneer, plus IBM and Cap Gemini Sogeti were given an average rating of 3.4 out of five by end-users for business re-engineering skills - only just ahead of the 3.1

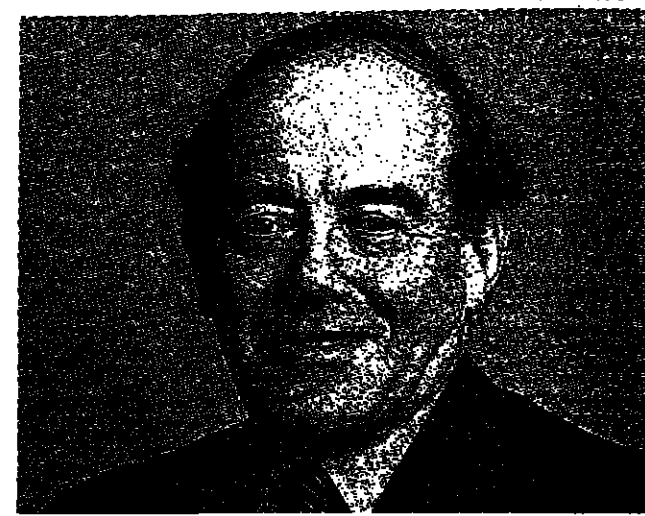
rating given to IT departments. The three services companies did slightly better on applying IT to business, winning a rating of 3.6, against 3.0 for IT departments. As researcher John Willmott puts it: "The first conclusion here is that neither the outsourcing vendors nor IT departments are especially highly regarded."

If suppliers are to promote partnership they might have to overcome customers' own ideas of what this means - and, indeed, whether IT is a special case in the first place.

Class supplier Pilkington contracted out its mainframe computer service to EDS in 1991 while it moved to distributed computing. Last year it renewed the contract for another three years, getting EDS involved in system development.

"When we outsource anything we try to establish a sensible customer-supplier relationship, but the idea of partnership suggests a closeness and longevity which don't exist in the business world," says Sir Robin Nicholson, executive director for IT at Pilkington. The sensible relationship that he talks about includes being available for frank discussion to resolve problems. "It's important to work together at a senior level, to speak your mind, but not fall out."

Sir Robin adds: "It's no different to a service relationship we might strike up with our own customers: for example, a car manufacturer introducing a new model will look to us to



Sir Robin Nicholson, executive director for IT at Pilkington: the extent of partnership in IT outsourcing 'suggests a closeness and longevity which don't exist in the business world'

be a long-term supplier of windscreens."

Charles Voughton, outsourcing manager at British Coal, agrees. British Coal contracted out its IT to Philips Communications & Processing in August.

"The outsourcing process is similar in many areas," he says. "Assets, including people, change ownership, and we as the client can specify the service and set up the controls."

If suppliers might find it hard work persuading customers into partnerships, they could also find that long-running agreements bring their own risks. In May, Bristol Water transferred its facilities management contract from Hoskyns to Sema, even though it was well satisfied with its six years' use of Hoskyns services.

The original contract covered a move from a mainframe to distributed, networked systems. Hoskyns ran the existing service and managed

the development of the new systems.

When the contract came up for renewal, Bristol Water went out to tender and eventually had a short-list of Hoskyns, Sema and ITNet.

"Hoskyns was in a strong position, because it was the incumbent supplier and knew us well and we were very satisfied with the service," says Bristol Water director Dr Arnold Bates.

"However, being the incumbent turned out to be a disadvantage. If they came up with new ideas, we could have asked why they hadn't told us about them before."

"It became clear during tendering that a new supplier could bring new enthusiasm and vision to our IT."

These views suggest that although customers are expanding the scope of traditional facilities management, they have yet to be wooed into full partnership with suppliers.

By John Kavanagh

The people issues

Staff anxieties are often soon dispelled

Those who survive an IT facilities management contract and can make the culture change, may well emerge with better prospects

Tony Fishwick had a double disappointment when his UK employer, the Home Office, transferred most of its IT division to computing services group Sema, a year ago. First, there were natural concerns about moving to a new employer and the fear of redundancy, especially after more than 20 years in the Civil Service. But in addition there was the disappointment of knowing that the IT division's own bid for the work had failed.

Since then, however, Mr Fishwick and his colleagues have almost all become quick converts to working for a services company. Their experience is typical: staff anger and fears might sometimes get aired publicly when contracts are announced or in the office, because most people fear the unknown, but dissent is rarely heard once people settle in. Independent research confirms this. The last annual sur-

vey by PA Consulting Group found that damage to staff morale was the main drawback to contracting out IT: it was mentioned by 45 per cent of the senior managers questioned. However, this was related to immediate concerns: uncertainty about what is happening, concern about job security and splits between staff who transfer and those who stay. In addition, staff morale became much less of an issue once a contract went live: a quarter of the companies questioned had later reverted to internal IT services and less than 25 per cent of these mentioned staff morale as a factor. In other words, around 6 per cent of the total.

"Our fears were quickly dispelled," says Tony Fishwick, who was manager of desk-top computing services and head of a team of 44 people at the Home Office. "Sema quickly held meetings with us all and put their own people in place to look at our operation, so we got closely involved with them before the cut-over date."

Indeed, the suppliers' experience here is usually far greater than that of the existing employer. Lynne Goff, who transferred to Hoskyns after the Ministry of Defence went through market testing at its Operations West computer centre, says the supplier was more helpful than her employer or her union - "much of the time



Lynne Goff: when information was in short supply, 'Hoskyns were always on hand to help'

it was hard to get information from the unions or the MoD itself, but Hoskyns were always on hand to help, even in matters which weren't really their responsibility."

Moving from a Civil Service or company IT department to a commercial services organisation usually means a significant culture change which is beyond some people: Tony Goff says it in a positive light. "There are no barriers to advancement except the ability and desire to succeed. Everyone gets the encouragement, training and facilities to develop their potential to the full."

This raises an issue usually highlighted as a key benefit of transferring to an IT services company: instead of working for a peripheral department in a large organisation, IT staff

culture change was needed in any case. Previously, the IT department controlled the budget and decided who would get what, and when.

"This has been completely turned round and we now meet customers' requirements. Instead, the budget is now controlled by our customers."

Staff at other services suppliers confirm that they, too, had to come to terms quickly with this approach, which is infused by induction courses, top management leadership and the attitude of existing managers and staff.

It is perhaps most poignantly promoted by pay - "we were accustomed to collective bargaining, but pay is now performance-related, meaning that you know greater effort will be rewarded," says Lynne Goff at Hoskyns.

Services companies say this can also be a way of luring to low achievers that they might not be wanted. Even so, Lynne Goff sees it in a positive light. "There are no barriers to advancement except the ability and desire to succeed. Everyone gets the encouragement, training and facilities to develop their potential to the full."

This raises an issue usually highlighted as a key benefit of transferring to an IT services company: instead of working for a peripheral department in a large organisation, IT staff

become part of a company in which their activities are the core business.

David Petch, an IT manager at ICI Agrochemicals when his 63-strong team was transferred to Hoskyns, says the move came at just the right time. "I felt my career was heading nowhere," he says. "The trouble with working for an in-house IT department is that there is little chance of progressing to a senior position elsewhere in the organisation. By joining a company whose core business is IT services I was sure there would be far greater career opportunities."

Mr Petch's hopes have been fulfilled, thanks, he says, to the training, career opportunities and "clear management focus on individuals' career paths" in the company.

However, when IT is transferred to a services company, some people must stay behind to manage the contract and develop IT strategy. Stefan Samek, formerly in a 100-strong IT department at the London Borough of Brent, is now one of a team of four, with the new role of IT commissioning manager. Last year, Brent contracted out its central mainframe service to Data Sciences while the service wound down and responsibility for IT was passed to council departments.

Mr Samek and his remaining colleagues became responsible

for corporate IT strategy, providing initial consultancy and advice to end-user departments and commissioning corporate IT and communications systems and services.

"It's been a liberating and fulfilling experience," he says. "Working in a central IT department means you focus on the day-to-day issues of getting the production work done. But when the production work gets contracted out you can look beyond it at strategic issues. In addition, you progress from a specialist to a generalist: you gain experience across user activities and work in teams of different disciplines. IT people do not usually have the opportunity to do this and therefore do not get the chance to move up the organisation outside IT."

This can be important. Mr Samek says his career could be restricted now that he no longer manages a big team: "If I went for a senior job in another local authority they'd ask how many staff I manage," he says.

Generally, though, it seems that those who survive an IT facilities management contract and can make the culture change, emerge with better prospects. For as David Petch at Hoskyns points out, 70 per cent of staff at all levels in the company have joined through facilities management transfers.

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Computer 'intelligence'

By Michael Dempsey

Business users of so-called 'artificial intelligence' soon discovered that it took more than an ambitious name-tag to transform a basic item of computer software into a product that simulated the complexities of the human brain.

As AI attracted a mixed reputation, commercial companies shied away from the title. But real advances were being made in systems that could replicate very specific human functions.

Since the term AI was fatally misleading, researchers in this field coined another, more informative description: 'Intelligent Knowledge-Based Systems', or IKBS, were born. The idea here was to multiply the experience of experts by feeding rules and observations born of their working life into a computer program. The program could then be used to inform and reinforce the judgement of less-experienced staff.

The financial sector soon grasped the potential for IKBS, with some building societies applying the idea to their lending processes. An IKBS containing loan criteria can be a powerful aid to branch staff. But no organisation will publicly admit to relying on the judgement supplied by software. The standing of computer systems is such that customers would be unlikely to perceive that degree of intervention as an improvement on their service.

Sun Alliance is the UK's largest property insurer with funds of £23bn. It has found a way to exploit the next step in

No substitute for the human brain

'Artificial intelligence' - or AI, for short - has been around for more than a decade. But like all too many promising concepts in the world of high technology, AI was undermined by over-optimistic marketing

Intelligent systems, neural networks. These programs use interconnected processing units (neurons) acting in parallel. Put simply, a neural network consists of bits of software working towards a common goal. This concept took up the baton from IKBS, heavily supported in the UK by a state-sponsored programme that Sun joined. The three-year £3m Neural Computing Programme is now in its final six months.

Growing interest

The Department of Trade and Industry scheme has been remarkably successful in raising the profile of this branch of IT. An initial propaganda phase was aimed at raising up interest and yielded a database of 10,000 people actively interested in the field. Then the project switched its attention to seven application demonstration clubs, featuring a central supplier who tried to answer problems set by club members.

These commercial bodies matched DTI funds on a 50/50 basis. For the Financial Forecasting Club, membership subscriptions ran at £30,000 a year. A more modest entry level club charged £2,000. According to DTI Neural Computing Programme project manager Ray Browne all of these initiatives have carried neural computing over the threshold of acceptability - "as technologies come along, you get the hype, then realism, then it gets embedded in systems. Neural computing is going that way. People who started out selling neural products now turn them out as marketing aids or part of statistical packages."

As fits the new generation of computer intelligence pioneers, Browne plays down expectations in the interests of practicality - "neural networks are very small compared to the human brain. We're not talking about taking over the world. These systems will only work if people start with the right data," he says.

"With participants such as

BZW and Sun, the DTI found players who didn't want to waste time and knew how to provide that appropriate core data."

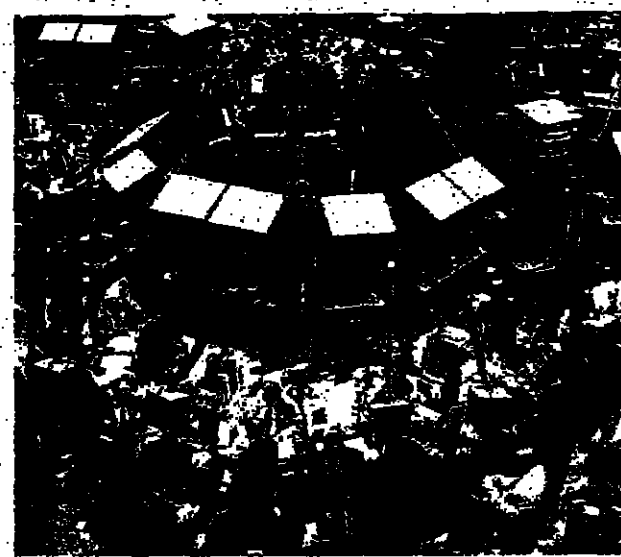


Tej Anand, senior consulting analyst: 'It's just a question of slicing and dicing information'

company to sift through names on mailing lists and eliminate madshot targets that will not respond: "We have demonstrated in real use that you can cut the volume of mailing by 30 per cent without reducing the number of responses."

Although neural networks led Sun to this discovery, the actual process is called 'data mining'. It is an attempt to make sense of the mass of computer data accumulated by all large commercial organisations. Software can be used to delve into this mountain of facts and figures in order to spot market trends and consumer patterns.

The Global Information Systems arm of US telecoms and technology corporation, AT&T, funds a Human Interface Technology Centre in Atlanta. The HTIC is a leading edge research body that operates under a remit familiar to the most clumsy and reluctant computer user. Its job is to examine the gulf between computer design and usage. "Twelve Dimensions" that



New York Stock Exchange: the financial sector was quick to grasp the potential of 'intelligent knowledge-based systems' or IKBS

delineate the possible relationships between humans and computers are among the doctrines of HTIC. Understanding is the twelfth and last of these dimensions.

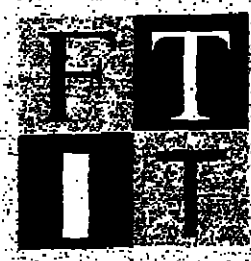
Hazdilly is not normally associated with the hype-prone world of IT, but scientists at HTIC have learnt to be very cautious in making claims for their work. No one in Atlanta pretends to have broken through the elusive twelfth dimension.

Tej Anand is a senior consulting analyst at HTIC. His career reflects the fortunes of intelligent systems. A decade ago he worked in New York, conducting AI research for Phillips. From there he moved to market research specialists AC Nielsen where Anand was

involved in the emergent field of data mining.

This inheritance is key to current thinking at HTIC. Anand is now working on systems that can analyse transaction data on the basis of given targets. If a retail outlet wants to correlate the size of a store with the turnover of a particular product line, then HTIC can write a program that summarises this data in ordinary language using graphics.

Anand describes the achievement modestly - "it's just a question of slicing and dicing information". Humans could carry out this task, sitting at a computer for hours: HTIC merely automates the procedure. But the saving in time and the expanded scope of market research make this a cru-



Directions

INTELLIGENT SYSTEMS

Here and on the following page, FT writers explore the world of expert systems and neural networks

cial field for retailers. Anand's progress through the world of computer intelligence reflects the current thinking - "personally, I have always focused on intelligence that works, not grand AI systems."

Computer intelligence has come a long way in the last ten years. That journey has taken it from outlandish claims to emulate brain patterns to the prosaic world of baked-bean stocktaking. But under the guidance of practical researchers, it is finally making an impact in the real world.

Knowledge discovery

By Michael Dempsey

Faster reactions to buying trends

Video cameras and computers can swiftly analyse 'aisle traffic' in shops

Knowledge discovery is a term coined by US researchers at the AT&T Human Interface Technology Centre in Atlanta, Georgia. The process of knowledge discovery involves using transaction data to understand the world of the customer, and it holds great promise for the retail sector.

Tying leading edge computer development to the contents of a housewife's shopping basket has a salutary effect on IT professionals: it forces them to express their activities in plain terms.

Tej Anand, a senior consulting analyst at HTIC, (see report, above), recalls a packaged foods company that carried out exhaustive studies of shopping basket contents. One conclusion of this survey was that ice cream and cookies tend to wind up in the same basket. This linkage prompted the foodstuffs company to introduce a line of cookie-flavoured ice-cream.

Anand characterises this work "as chasing more of the share of the stomach". This image may leave some people feeling queasy, but it sums up the commercial realities that drive neural computing efforts. AT&T reckons that the amount of data in the world doubles every 20 months. So the effort of interpreting and drawing lessons from that information is a constant struggle.

Sales data

Trevor Dukes is one of HTIC's customers. As systems development manager for UK retail chain, WH Smith, Dukes entered the world of



You never know who's watching as computers analyse the queues

data mining through a £3m hardware purchase from AT&T's computer arm, Global Information Systems.

WH Smith invested in computer hardware configured for the task of churning through sales data. The company developed its own software, running on the GIS machines, to analyse till data. Dukes says WH Smith now enjoys improved management of its ranges.

This translates into quicker reactions to buying trends. With the collapse of the UK Net Book Agreement, retailers are free to discount on popular hardback titles. They are equally free to cut prices in order to stimulate sales of slow-moving stock.

Using data mining techniques, Dukes and his colleagues can spot authors who are not hot favourites with the book-buying public - "thus their books might be right for a discount. The process means we can put a far more credible range of products in front of the customer".

Back in Atlanta HTIC has been working on ways to

break down video film and allow computers to analyse the contents. While glancing at video footage might be a simple exercise for the human eye and brain, it is a great challenge for a computer. Processing visual information is no easy task, but HTIC have devised a board that fits into an ordinary PC and allows this analysis using an AT&T algorithm.

For \$1,000 a month, the Atlanta laboratory can take film from in-store security cameras and churn through the human traffic flow to determine where the public goes once they are inside a store.

The algorithm works on accumulated motion, throwing up colour diagrams of queues and aisle traffic that look like a garish abstract modern painting.

But these colours translate into information that is anything but abstract. A map of one week's aisle traffic will show just which promotions attracted interest. A WH Smith store outside London at Romford was chosen for the UK prototyping of this technology.

Dukes has no grand illusions about the immediate impact of imaging analysis - "common sense tells you which till-point is the most congested" - but the information so far has pinpointed the success or failure of promotions in terms of how many people approach a particular part of the store.

The closed circuit TV cameras were already in place, so WH Smith has gone further into the data mining world without any extra capital investment. Dukes lives for the day when till data can be integrated into the camera picture analysis: "I'm sure that very clever neural network will have their day, but there's still an awful lot to be learnt from the basics."

Neural networks

By Lisa Branstetter in New York

New ways to track fraudsters

Computer systems spot 'unusual' purchasing patterns by credit card users

At first it can be a frightening experience. A representative from your bank rings and starts asking questions about your credit card use. It turns out, however, that the agent just wants to confirm an unusual transaction they have noticed on your card.

"Did you buy a \$2,000 necklace in San Francisco?" the agent might ask. If the answer were no, the bank could cancel your card immediately thus preventing more fraud before you had even realised your card number had fallen into the wrong hands.

But how did the bank suspect there might be a problem? The answer lies in computer systems known as neural networks that can act like the human brain and learn to recognise patterns.

The systems - in use by Visa International and many larger banks - often use "fuzzy logic", a form of artificial intelligence in which computers are designed to make decisions based on questions that do not necessarily have 'yes' or 'no' answers.

For instance, in the US, credit card thieves often test to see if a card is still valid at gas stations with automated pumps so they can check without facing a live salesperson. Therefore, if the computer sees a small purchase - at, say, a petrol station - followed by a large purchase of jewelry or other easily resalable merchandise, the computer would flag the transaction as potentially suspicious.

In the case of Visa's system, all transactions are fed into the neural network in McLean, Virginia, about three hours after they occur, but Ms Jean Brusewitz, vice president of risk analysis services at Visa, says she hopes to have that down to 15 minutes by next April - "the objective is to get as close to the transaction as

possible," she says.

If the transaction scores near the top of the 1-to-1,000 scale for fraud, then the computer alerts Visa, which can pass it along to the issuing bank about an hour later.

Participating banks are not notified of every suspicious transaction, rather, Visa scores the transactions for the probability that they are fraudulent and the banks pick the threshold at which they want to be notified.

"We're not about to call 10,000 people and ask them if their transaction was fraudulent in hopes of catching one person," says Mr Barry Smith.



Neural networks can spot unusual purchasing patterns, alerting banks to possible stolen cards

head of fraud and credit operations at BankAmerica, which spent 17 months testing Visa's neural network.

The project began on a mainframe computer with outsiders developing the software, but in the middle of the process Visa switched to an IBM SP2 computer with parallel processors and decided to develop the software in-house.

Since 1992, Visa, which is a payments system for card issuers and the banks of participating merchants, has invested about \$2m in the system.

Although the system does not stop the first fraudulent transaction, it can prevent a long string of illicit charges

made before the customer gets a statement, which can lead to big savings for the issuing banks that are responsible for all charges over \$50.

Ms Brusewitz says the neural network system, along with other fraud-prevention programs, produced \$43m in savings for the 15 banks that participated in the pilot program between July 1993 and the end of last year.

At the start of this year Visa formally began providing the service to all US-based members for fees ranging from \$1,000 to \$10,000 a month depending on the volume of credit card transactions the bank processes. This year, Visa also began pilot programs with financial institutions outside of the US. The service is now available to all Visa banks in Europe, with access expected soon for banks in Asia and Latin America.

Visa's system is designed to complement, not replace neural networks that the larger banks have established for themselves. Visa says about half of its clients have their own system or one established by an outside vendor.

Mr Smith of BankAmerica says Visa's program made a significant contribution to the 24 per cent decrease in credit card fraud the bank experienced last year. In addition to Visa's system, the bank has its own network that it uses to track the activity on the accounts of individual customers.

Additional savings come because they look through different sets of information. The banks keep the data about individual cardholders, so a BankAmerica computer might notice an unusual activity for a particular customer - for example, the purchase of a \$2,000 necklace by a client who had not previously bought jewelry on a credit card.

Visa on the other hand might more easily target a particular merchant or type of merchant that has been party to a disproportionate amount of fraudulent activity.

Mr James Beam, a technical consultant at the Tower Group, which does consulting on bank

technology, says that a large bank with its own neural network could reduce fraud loss by another 10 per cent by also using Visa's system.

Citibank, which is the largest issuer of credit cards in the US, has also reduced fraud through its own neural network, which it began developing in 1991. In that year, the bank exceeded the industry average for fraud by about 50 per cent. By one estimate the bank lost about \$150m to credit card fraud that year.

Although Citibank will not disclose losses, bank officials say that by the end of last year, fraud loss was down to about half of the industry average in part because its neural network helped it decrease the number of fraudulent transactions on its cards. Citibank began using Visa's neural network in addition to its own at the end of last year and says it has proven a useful additional tool to catching fraud.

In May, Visa's main rival, MasterCard, entered into an agreement with scientists at Los Alamos National Laboratory - the government laboratory where the first nuclear bomb was developed - to create a neural network to track fraud. The technology MasterCard will use is similar to that being developed to do such things as detect signs of nuclear proliferation.

MasterCard will invest about \$500,000 in its systems and hopes to begin testing the system with banks in the US and Europe by early next year, according to Mr Philip Verdi, executive vice president of electronic services at MasterCard International.

Right now the rush is on to find new uses of the neural network technology. BankAmerica, for example, hopes to use the technology to determine when a customer's activity suggests that they may be about to drop a BankAmerica-issued card. Also, the computer might use clues such as an increase in the number of cash advances to determine if a customer is about to declare bankruptcy or delinquency, says Mr Smith.

No system works without human intuition

Bill Edisbury, manager of artificial intelligence projects for the TSB Bank in the UK, has an interesting definition of practical intelligent computing. For any AI project to be worth his bank's long-term interest, "it must exhibit industrial strength".

This no-nonsense requirement has steered Edisbury through several interesting neural computing applications, writes Michael Dempsey. In 1989, the TSB began work in the neural computing field with Department of Trade and Industry backing and in co-operation with University College London and the Bentley Centre for Forecasting. The idea was to see if neural networks could be harnessed to foreign exchange movements and offer a guide to future fluctuations.

Data from the London International Financial Futures Exchange, Liffe, formed the core of the network. A total of 800 observations, based on 15 years of trading, were fed in and applied to different forex strategies.

The result, trialled at TSB's Hill Samuel subsidiary, was a limited success, according to Edisbury.

'Neural Networks in Financial Services' was the title of the project, and for the time being NNFS is in abeyance. The software relied on a powerful Unix workstation, a system popular with engineers and scientists, but not entirely friendly to hard-pressed currency brokers. NNFS, Edisbury says, "ran beautifully on a set of hardware that's not easy for non-technical users to maintain".

He is now looking for a version of NNFS that will run on a PC and meet his demand for robust systems. TSB has

Continued on next page

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■ Artificial intelligence: data analysis

Smart ways to reach the right market

Too much information can be a worse problem than not having enough. In the field of marketing, there are now myriad ways of finding out about customers and targeting them

Marketing data comes from many sources – almost too many. Data from external sources such as a census, postcodes and demographic systems have to be dovetailed with internal point-of-sale, accounting records and all sorts of other systems.

So-called expert or intelligent systems can help make sense of such amalgamated data. In the technique known as 'trending' or 'data mining', users can set a piece of software on to the job. The so-called 'agent' searches the data, looking for a particular pattern.

First, users have to know what they are looking for: a pattern of behaviour, a certain set of criteria, or a set of characteristics which suggest a certain likelihood of outcome. The other term often used for intelligent systems, 'neural network', suggests an ability to make connections in a way that human intelligence can. In fact, when a computer makes connections, it is not

intuitive, but a matter of searching vast amounts of data and making matches.

One element in the search is speed and efficiency. The other is the ability to 'learn' by correlation of one fact with another to create a third assumption or suggestion. The system can bring something to a user's attention this way, but human judgement on the facts is what matters.

TDS Marketing Group is one of the new breed of companies which is using computer 'intelligence' as well as processing power. Founded in 1988 and based in High Wycombe, Bucks, the company is currently 50-strong and taking on another 30 people specifically for telemarketing.

"I hope we are leading the way in making sense of huge amounts of data," says Adrian Gregory, chief executive officer of TDS.

TDS Insight, the marketing specialist division, is developing 'intelligent' marketing tools, typically working with user-organisations for segmen-

tation and targeting, de-duplication and data cleansing of their own data – "our job is to help them make sense of what is often a huge amount of customer data to make use of it for improved marketing and customer targeting as well as sales planning issues," says Mr Gregory.

The problem is that the volume of data is not only large, but often inaccessible, hidden in everything from sales and order processing systems to payroll – "it's just hidden away, but if you could only provide access it would be immensely valuable," he adds. The volume also makes the system slow and cumbersome. It could take days to mill through the detail by which time the question has gone out of date.

Mr Gregory discovered the software, supplied through White Cross, at a London seminar last year. He watched the product using massively parallel processing (MPP) to query huge amounts of information in a few seconds, and was immediately excited by the possibilities.

"We saw that it was possible to ask lots of questions and explore data. We were immediately excited by potential applications in marketing. So we approached one of our more

forward-thinking clients, DHL, and they were enthusiastic and could immediately see the benefits."

The route forward was for DHL to use TDS' expertise to implement and interpret the White Cross' proprietary (non-



Adrian Gregory: 'making sense of huge amounts of marketing data'

standard) technology. TDS bought a version from White Cross to use as the basis for a marketing-specific application.

"In the last five years have transferred and set up the marketing database for them on the White Cross machine," explains Mr Gregory. "Once it

was in-house, we started developing tools and software to make the best work in marketing application. Our resulting system, called Mar-Kit, is a toolbox of various software applications."

The Mar-Kit software works under Windows on a PC, connected to the MPP computer via a communications processor.

Some of these applications are straightforward analysis tools, but one has an element of 'intelligence'. The first step with a new client who has a huge amount of information is to look at the data and the quality of it.

"We load it onto the system and the Data Auditor tool tells you what fields there are, their minimum and maximum values, which of them are populated, and so on. It then produces graphs so that you can see the spread of existing data: this helps identify customer-base, pattern of purchase, and so on."

The tool called HeatSeeker is the model into which the software supplier White Cross, working with TDS, built the element of 'intelligence'. The user sets it an objective: for instance, the profile of a successful group of customers, and it will mine down into the mass of data and look for rela-

tionships between fields, looking for hot spots or patterns.

"The great strength here is that it is working on the full dataset," says Mr Gregory. "Too often such sampling systems work on a subset for sampling and then extrapolate the results, which can be a flawed method with limitations."

"It's remarkable the savings that can be made – sometimes improving the targeting by a factor as high as forty, of companies likely to buy a particular product," says Mr Gregory.

"The success we are having is significant," he concludes. "In retail value terms, it's cost us £1.2m – it's a big investment for a company of our size but the bureau service we are able to provide as a result has paid back the cost in six months."

"It also means we get better savings by better targeting: we use it for analysing our own data. It's holding the data in a way set up that is perfect for fast analysis."

The White Cross system ranges from £150,000 upwards, running on a proprietary computer which is nevertheless 'open' in that it can be used with any other client-server system, using Microsoft's open ODBC structure.



Top prize winner: Daniel Harris designed his winning software while studying at Brunel University: see details below. He received a cheque for £3,000, plus a suite of Computer Associates' micro product software and a Fujitsu ICL ErgoLite system – prizes totalling £10,000

■ Business Software Challenge

The pick of the bunch

Prizes worth £20,000 were shared among this year's winners at the London presentation

Eight finalists from the largest entry yet reached the final judging round of this year's Business Software Challenge '90s. The entries were astonishingly varied, ranging from specialised applications – gym-booking systems, manufacturing planning and schools administration packages – to tools built to help C++ (the programming language) and Visual Basic programmers, and Visual Basic programmers, writes Claire Gooding.

Among the entries systems with the potential to be commercial winners, including the one which convinced the judging team (unanimously) that it deserved first prize.

Judges gave particular weight to the analysis of the problem and the quality of the solution the students had produced. They also assessed creativity, marketability and other factors.

The 18-strong judging panel (see panel, right) was drawn from academia and business. It included representatives of the sponsors, Computer Associates, the software company, and ICL, the computer and information management company.

The Business Software Challenge '90s was founded in 1991 by Computer Associates to recognise the design skills of students in higher education. The prizes total £20,000, including cash, hardware and software. This year the prizes were presented by Judith Scott, chief executive of the British Computer Society, at a ceremony at the Royal Lancaster Hotel in London last week.

First prize

■ **Rollingstock Maintenance System**, by Daniel Harris of Brunel University.

If you need to repair the lavatory seat in a railway carriage, you may have to spend three hours tackling 26 manuals before you discover that the part you need is called a 'hopper cover'.

Multimedia is an ideal medium for the maintenance of vehicles, and Daniel Harris



● The 18-strong judging panel was drawn from academia and business. It included representatives of the sponsors, Computer Associates, the software company, and ICL, the computer and information management company.

● Other representatives on the judging panel came from the supportive organisations: the British Computer Society; Coopers & Lybrand; the Institute of Management; the Worshipful Company of Information Technologists; and the FT-IT Review of Information Technology.

was able to see just how valuable such a system could be when he worked for six months at ABB's rolling-stock maintenance centre at York. British Rail is not allowed to run trains without proof of correct maintenance, and the Visual Information System is a great aid not only to finding a part, but seeing what it looks like, where it fits, and all its supporting documentation. Thorough testing with end-users – mostly computer novices – and provision for the maintenance of the system clinched the first prize for this robust, well-thought out product.

Second prize

■ **Bankers' Support System**, by Harjinder Mann of the University of Greenwich.

The hot topic in banking is understanding the customer. Harjinder Mann's Bankers' Support System is very much a personal, easy-to-use PC tool for the individual bank manager, whereas systems to profile customers are usually the subject of massive centralised mainframe projects.

"The Support System is a flexible toolset that can be adapted to reach into current and historic data to meet a set of criteria requested by the user, who

Continued on facing page

■ Neural networks in finance

Banking applications

Continued from previous page:

enjoyed greater success with Personal Loans Protection Insurance or PLPI: this is an attempt to marry protection schemes for financial products to the likelihood of any one individual needing to claim.

PLPI is potentially a boon to TSB customers, who stand to receive quotations matching their personal circumstances rather than fees assessed on the basis of thousands of claims. TSB is always willing to pay up when protection is invoked, Edisbury stresses, but it does want a precise calculation of its exposure on each agreement.

PLPI is based around neural network design software from UK company, Recognition Systems. The system was devised on the basis of 17 months of past claims. The example of these claims trained the network to assess new applicants.

Edisbury says TSB has already altered its pricing structure for loans protection as a result of PLPI's improved calculations.

Neural networks are not the only intelligent computing venture in which TSB is engaged. Genetic algorithms

are an emerging computer science that allows users to feed 'what if' scenarios into a program. These are being studied as a possible tool in risk assessment. "Fuzzy logic", a method of allowing a piece of software to roam within set parameters and evaluate decisions, is also under test.

What distinguishes TSB's work in intelligent computing is that significant advances have been made inside five years for very little expenditure. Edisbury estimates that NNFS and PLPI cost the bank around £10,000 each – "this work is very, very cheap, because the software tools cost around £2,000".

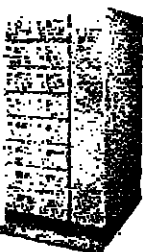
The key to success, he insists, lies in the initial choice of data to be programmed-in. This is where the intelligent software gets its raw material.

Edisbury is determined to distance his "industrial strength" work from the early, naive hopes of the AI community – "personally, I don't like terms such as Artificial Intelligence at all. Whatever you call the process, these are only ways of working. And you will always need human intuition. No system will function without it".

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Solutions for a small planet

Accounting: the need for international, integrated and informative software packages

Users demand more flexible solutions

As organisations develop 'flatter' structures, they need broad-ranging software. Claire Gooding reports on how the re-structuring of companies has had an impact on their choice of accounting packages

The three T's - Integration, International and Information - currently dominate the thinking of users and developers alike in accounting. Users demand new levels of integration to serve their new 'flat' structures: where companies used to buy separate ledgers, they now buy a package which not only integrates all the accounting functions, but may itself link with operational systems, for manufacturing, logistics, or sales and marketing.

The new flat structures often

centralise operations such as sales, or even accounting itself, across national borders. Users need to scale-down the overheads of running different accounting systems in various countries. As a result, they look for flexible solutions that can support different configurations of manufacture, supply, and distribution, linked with accounting software that will support the various national fiscal regulations and reporting structures.

Flatter management structures also bring with them an

onus to know more detail about a broader spectrum of activities. Companies who are 'downsizing' or 're-engineering' (British Telecoms is a good example) often cut out swathes of middle managers who used to be the information providers.

Companies are doing something more fundamental than introducing a new set of programs, according to Roger Hornby, director of the European consultancy OSI, which describes itself as a management support company.

Mr Hornby has been helping users implement accounting systems since the late 1970s - "the first issue is to recognise in advance is that what they are doing is changing people's roles. Finance staff might find themselves interpreting information and supporting management decisions rather than just processing data."

The executive information system, EIS, has changed its coat to become an 'enterprise intelligence system' as computer users realise that good detailed information should not be the sole preserve of top managers. Increasingly, the applications vendors see the third T - the delivery of good 'information' - as part of their job. Many accounting packages

now offer flexible reporting tools and the kind of facilities once offered by EIS - drill-down and 'traffic lighting'. These are alternatives to bolt-on tools for data access and reporting (sometimes known as 'Dart'), but are unlikely to replace specialised consolidation and reporting tools from specialists such as Hyperion and Dillon.

Beneath these layers of functionality lie the broader developments in technology. Many users have taken the opportunity offered by 're-engineering' to devolve centralised mainframe functions to localised networks using an 'open' architecture. The client-server architecture suits the flat organisation very well.

Recent research by US-based analysts at the Forrester Group identified that the majority of Fortune 1000 companies were looking for a move to client-server applications, based on a sampling of more than 40 organisations. Nearly 70 per cent cited 'better end-user access' as the reason. Users face a difficult choice, says Forrester: 'legacy' companies, such as SAP that "facilitate migration path", or those that have started from scratch with new technology, such as SQL Financials, or the Dodge Group.

Established suppliers such as Computer Associates, PeopleSoft and many others have already adopted client-server

technology. Open systems have made globalisation an imperative for users, but have also helped to create a wider market for software developers.

The demand for international operations and support is the biggest challenge at the top end of the market: providing local support can be a bigger challenge than designing flexible software.

A few European contenders have made the leap from home ground to flourish elsewhere, helped by the move to 'open' systems. Packages such as SAP's R/3, itself an integrated combination of accounting and manufacturing, are emerging from national niches to establish themselves on the international scene. However, the more modular or parameterised the solution, the more users need local consultants to install it. Implementation fees are becoming an important part of income for some developers.

SAP, from Germany, Scala from Sweden, and Exact from the Netherlands, are among the best-known European packages, while there are several contenders from the UK including Tetra, Coda, and JBA.

At the top end of the market, the US suppliers such as SSA and Dun & Bradstreet have always looked at a global as well as local US markets, an

attitude that gave them international muscle. There is evidence that the same global attitude has percolated down-market, with the same effect on smaller developers. Market concentration, is one of the trends highlighted by Jyoti Banerjee, head of the research arm of accounting software consultants Tate Bramall - "we're seeing the concentration of sales into the hands of fewer but larger vendors. There used to be 800 or more vendors in the Tate Bramall directory a few years ago, but series analysis of sales in the last three years shows that 50 per cent of all new sales are going to only ten vendors. Two thirds of developers have disappeared, either through going bust, acquisition, or through the effects of age."

Internationalisation accentuates the trend of market concentration even further, argues Banerjee - "leaders of national stature are emerging in geographical markets, but some of them are beginning to move into the international realm: these are the companies that will see a return on their investment in a flexible product that can sell as well abroad as it does in its country of origin."

Continued on next page

The 1995 Business Software Challenge

High quality in record entries by software designers

Continued from previous page

can then build a 'picture' of a particular customer or set of customers, depicting and linking details from various accounts, showing fluctuations, trends, and balances. Bankers need to use intuition and judgement on a customer's lifetime value, and the judges were impressed with the understanding of a complex business.

Highly commended

Three entries on the shortlist narrowly missed winner status and were considered worthy of a 'highly commended' award:

■ Visual Basic Developer's Assistant by Russell May of the University of Wolverhampton.

The Developer's Assistant started out as a project to standardise error-handling in Visual Basic programs, and grew into a full-blown product which would provide solid, bullet-proof applications.

A West Midlands police officer who is pursuing further education in IT, Russell May

has discovered his flair for entrepreneurial IT products. His product is an animated debugging tool that also strips out redundant test-code, ('executable bloat'), prints colour-coded listings, and checks user interfaces, measuring the user-friendly 'usability' factor of a program. New versions of Visual Basic might give this product a short shelf-life, but it has great commercial potential in the meantime. It was a close contender in the closing stages.

Also highly commended was:

■ Computerised Product Catalogue by Amanda Davies of De Montfort University.

Amanda Davies' multimedia catalogue was conceived as a cheaper and more flexible solution to providing product information than the traditional paper catalogue. The prototype displays the fire and safety products manufactured by Honeywell, but the software was designed to be a generic tool for constructing catalogues. It includes tools for input of pictures and text, for displaying and for maintaining the information subsequently, and is adaptable to use with CD-Roms, tapes, or even over the Internet.

As well as being multi-lingual, it provides simple tools for end-user browsing and searching, and is currently in use at Honeywell. In theory it could be used to create cata-



Harjinder Mann: his Bankers' Support System won him the second prize, worth £5,000

logues for all sorts of product.

Another highly commended entry was:

■ Computer Automated Plant Selection System by Alan Kennedy and Andrew

Dodd of the University of Liverpool.

The Computer Automated Plant Selection was commissioned by cable-maker BICC to solve a very specific planning problem. It can take two weeks to work out the configuration of cable-making machines on the factory floor, to ensure maximum efficiency in production for the expected workload.

The aim was to create a system in a short deadline, partly to aid in the design of a new factory in Vietnam. It had to fit in with all the specifications dictated by BICC, but left some room for some flair from its authors in the use of automated help, and the scoping of possible scenarios.

Runners up

■ Academic Review Programme by David West of Kingston University.

The National Curriculum in the UK has put a notoriously high workload on teachers in the area of paperwork and assessment. David West's solution, the Academic Review Programme, is designed to make future report-production, assessment calculations and performance monitoring much

easier for individual teachers, once the initial information on pupils is entered in the system.

Developed in close association with a London school, the system has grown to include features for feedback to teachers, parents, and the students themselves, particularly in the long-term tracking of performance. This feature could lead to lead to a wider market in higher education and other areas. If schools have the resources to buy (for around £200-£300) and to maintain the system.

Another runner-up was:

■ Naples: a Class Library Management System, by Calum Mitchell of Napier University.

An increasing number of computer students are learning the C++ programming language for the design of object-oriented programs (OOP). One of the theories of OOP is that objects - literally chunks of code - should be re-usable, almost like functions stored in a library. The weakness is that re-usability depends on knowing what objects already exist, where, and exactly what they do.

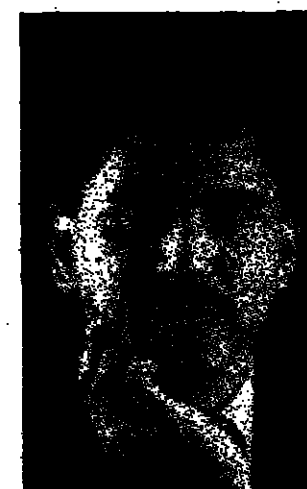
Calum Mitchell's project built on the work of a previous

student whose project (called 'Rome') had built a database to store previously-written classes of code. The Naples project goes one step further, providing a colour-coded index of classes and their features, including links and inherited features.

Another runner-up was:

■ Re-usable Intelligent Collaborative Hypertext ('Rich'), by Weigang Wang of the University of Liverpool.

There are plenty of problems in producing good documentation, and one of them is keeping in line with other technical authors in a team. Weigang Wang's system for Re-usable Intelligent Collaborative Hypertext ('Rich') is designed to help in the area of authoring and document publishing. 'Rich' provides a logical structure for the narrative process by which documents evolve and grow into different versions. The system also provides an indexing tool so that chunks of text can be located and re-used, which promises great improvements in the efficiency of technical authoring. A great deal of thorough work had gone in behind the well-structured screen presentation of this product.



Jyoti Banerjee of the Tate Bramall consultancy: Fifty per cent of new sales are going to the top ten accounting software vendors



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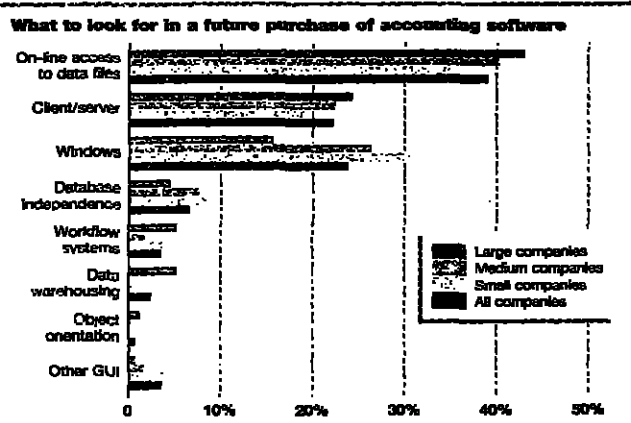
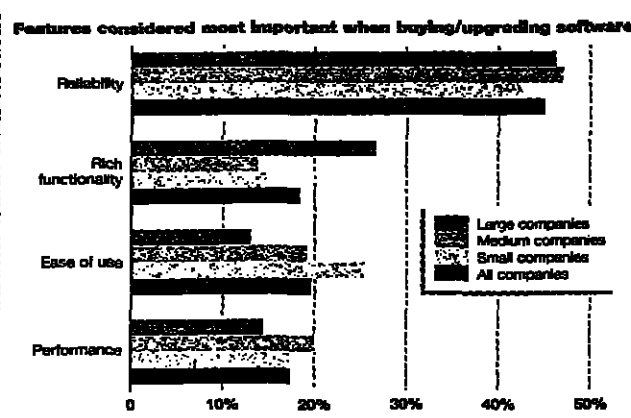
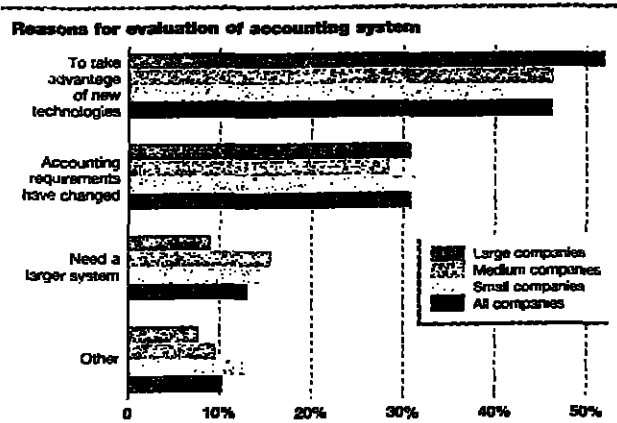
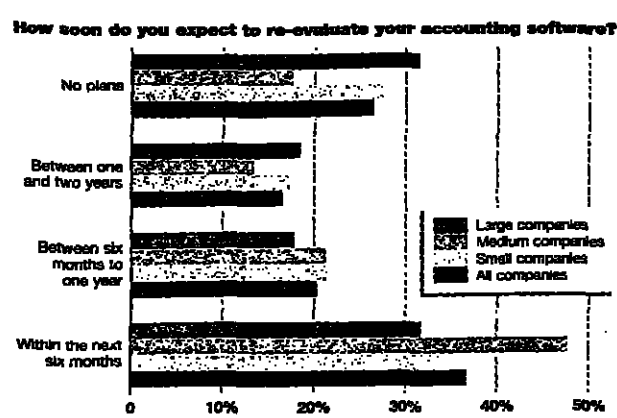
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Two-thirds of users want a change of accounting software package

A large proportion of companies are planning to change their accounting software to take advantage of new technologies, according to research carried out by Tate Bramald in association with the 'Softworld in Accounting and Finance' exhibition to be held in the UK in January 1996.

Sponsored by Hyperion, the developer of financial reporting software, Tate Bramald surveyed 500 companies, a quarter of them from Times

1000 companies. Two-thirds said they would re-evaluate their current offering in 1996. Only a quarter were happy to stay with their existing vendor, and a third were convinced they would not.

Reliability came top of the list of concerns, ease-of-use second, and functionality was only third. Stability of the supplier came fourth – considerably higher up the priority list than before.

Users expect a higher degree of customisation with a tai-

lored solution for a package price. On-line access to data was identified as the key benefit of new technologies: about 45 per cent of people made on-line access available to other departments, although security was the main barrier to wider access.

"People are beginning to realise that accounting information has a role outside the accounts department," comments Tate Bramald's Jyoti Banerjee.

As to hardware environ-

ments, only two per cent of the sample are using Microsoft's NT at present, but it is listed as 22 per cent as the preferred platform, a strong contender against Novell and Unix-based systems. Windows 95 (under two per cent currently) is forecast to rise to 23 per cent.

"Softworld in Accounting and Finance" will take place on January 23-25 at the Ramada Hotel, Heathrow. For more information, call Interactive (Softworld) on 0181 541 5040.

Suppliers react to the need to 'go global'

Continued from previous page

Object-oriented packages may reverse the trend. The first such accounting package was launched in 1993 by Software 2000, and developers are increasingly beginning to see the benefits of flexible design.

Mr Banerjee suggests that the whole idea of object-orientation, with objects that perform certain functions, "may well reverse the internationalisation process and take us to a new area where large international vendors provide the accounting framework, with the help of a small specialist".

Research suggests that users are open to change (see chart, above) – "the new paradigm offers graphically-based screens, distributed processing, and better access to data wherever it resides. The technology is so pervasive that people have to change simply to get the benefits of technology," adds Mr Banerjee.

Even at the lower section of the market, the Sage Group, the highly successful UK company founded in Newcastle-up-

on-Tyne, is reacting to the need to 'go global', and it is using object-oriented technology to consolidate its research and development.

"The majority of Sage's business is in the medium and small-sized businesses," says David Pinches, director of marketing at the Sage Group.

"Our approach is to grow our business through acquisition in different countries. We intend to continue running our three French acquisitions as individual companies, because the legislation and tax issues are so closely identified in the marketplace. But looking forward to development, our R&D teams around the world are already using each other's 'objects': so if we have 'tax return' facility for one country, we can adapt that elsewhere."

Dennis Keeling, author of the Ovum Report on Corporate Accounting packages, published last month, dismisses both OOP and client-server technology as "the computer industry solving its own problems". Mr Keeling, who is also part-time chairman of the Busi-

ness and Accounting Software Developers' Association (Basda), with 150 members from Europe and South East Asia, quotes Basda's annual user-survey – "Interestingly, the topic of client-server came only 13th out of 16 requirements cited by users in the survey, and Windows only came tenth."

"Object-oriented software didn't even get a look-in".

The main requirements, he says, "are to do with flexibility, functionality, and user-friendliness. In researching, I've found that we've had very little improvement in productivity, and the industry is too pre-occupied with technology without productivity. Go back to end-users and these are the things they really want".

Package for small companies

Help for pioneers in electronic commerce

Ways to reduce paperwork and speed-up transactions

Small companies are being offered help to become pioneers in electronic commerce by accounting software supplier Pegasus, which has 30-40 per cent of the market among companies with turnovers of up to £50m.

First, it has teamed up with Griffin Factors, part of Midland Bank, to launch the first factoring service to use electronic data interchange (EDI), writes John Kavanagh.

Firms can now send customer invoices directly from their Pegasus Capital accounting package to Griffin Factors using standard EDI messages. Finance can be arranged within hours to help cash flow; Griffin then chases the customers for payment. The facility eliminates the paper-handling and delays of sending the information by post.

Pegasus has also introduced a computer-telephony integration option on its Opera package: small companies can now enable their customers to order goods and check stock levels and their accounts through a touch-tone telephone.

This Multicall facility uses recorded spoken messages to guide callers through the process. In addition, Pegasus had



Pegasus chief executive, Jonathan Hubbard-Ford. Small companies need to get into EDI.

added an EDI module to its Capital package – this follows the development of similar modules for its 'Opera' and 'Senior' products this year.

"Small firms need to get into EDI because their big customers are increasingly insisting that they trade electronically or lose the business," said Pegasus chief executive Jonathan Hubbard-Ford.

"We are at the 'small firm end' of the market and we aim to provide products that are easy to use and affordable, so we're helping to bring down the price of electronic trading."

Accounting software: package selection

Plenty of pitfalls for the unwary buyer

There is not enough help available when selecting accounting software and organisations are missing some of the opportunities that technology has to offer, suggests Rod Newing.

Not every organisation is making the best use of the software it already operates and there are a great many factors to be considered when selecting new accounting software. Organisations do not always consider all the opportunities and they need help to identify a shortlist.

The accounting systems market is very fragmented with an estimated 600 accounting packages available in the UK alone. The potential purchaser needs as much help as possible in identifying the most suitable shortlist. The best UK source remains the *Softworld Report and Directory*, which even includes the names of Business and Accounting Software Developers' Association (Basda) members not represented at their event. It is a poor reflection on the established accreditation schemes that a young commercial product should be in this leading position.

The Institute of Chartered Accountants in England and Wales have been operating an accreditation scheme for some years on behalf of its members. With about 20 products being listed, the scheme has not yet attracted sufficient members. Some vendors of excellent packages have either not applied or have withdrawn from the scheme. It is now being reviewed and changes are planned.

The British Standards Institution operate a Kite Mark scheme for accounting software, but it is restricted to UK developers. Many organisations find that overseas products, which have been fully localised, are more suitable for their requirements.

Neither of these schemes has yet proved attractive to devel-

opers, who must expect to see benefits in the marketplace to justify the costs involved in joining either of these schemes.

Basda itself is being reluctantly dragged into setting up an accreditation scheme. After agreeing a VAT accounting standard with HM Customs and Excise, it has been forced by the lack of a third party to recruit its own assessors. Vendors, users and the government are all keen to be able to show that the agreed VAT standards have been properly implemented. If it is successful, it is reasonable to assume that the scheme will be extended to cover all areas of accounting.

EDI facilities

Basda's research has found that eighty per cent of all computer input data comes from a computer-generated source. This duplication of input effort is inefficient and gives rise to errors, which waste time in correction. Many vendors provide Electronic Data Interchange (EDI) facilities, including even lower-end products, such as Pegasus Capital.

However, Basda find that EDI is still only used by thirteen per cent of British organisations and only one third plan to implement it. This represents a massive increase in usage, but most organisations still do not plan to realise the benefits.

Whereas the Bankers' Automated Clearing Services (BACS) system provides electronic funds transfer, it does not provide electronic recording. Customers still have to send remittance advices and suppliers still have to manually record receipts.

It is only a matter of time

before on-line banking arrives. This will use EDI to provide both settlement and automatic recording of payments. It will also allow electronic bank reconciliations. There will be even greater efficiency when invoices are abolished and goods and services are paid for on delivery or completion at the amount stated in the purchase order. Known as self-billing, this is currently restricted to the largest companies. Nevertheless, EDI has enormous potential in bringing efficiency to accounting departments and its low uptake is disappointing. Organisations should consider the options available when they are choosing new accounting systems.

With the pace of change in commercial organisations it is important to select a package which will meet future as well as existing needs. This means that organisations should review their potential vendors' future product development plans. It is important to ensure that they will be exploiting the benefits of new technology and developing the type of functionality which a growing organisation will need.

Some vendors are squabbling over whether their research and development costs should be capitalised or written off. This is distracting attention to the level of research and development spend which they are investing in their products.

Obviously, some companies spend their development budgets more wisely than others, so it is not a guarantee of product quality, but it is a useful starting point. It is particularly important to check that the vendor has the financial resources to deliver its intended development plan.

Since the government eased restrictions on the audit of small companies, the arrival of some excellent entry-level accounting systems should not be used as an opportunity for small businesses to dispense with an accountant completely.

Any organisation should select a package in co-operation with its accountant, who will ensure that the system is appropriate for the client's business. However, accountants offer some very practical help to smaller businesses. They will ensure that a proper implementation plan is prepared to ensure a smooth transition to the new system and make sure that the correct chart of accounts is selected.

The accountant will check that the system is set up properly with the correct opening balances. They will also teach the client to enter transactions correctly, close off properly at the end of each month and generate an accurate VAT return. If registered, the accountant will then be able to close off the books at the end of the year and check that all transactions have been entered correctly during the period.

Accuracy

Most of the vendors of entry-level accounting packages offer this type of advice in their manuals. Small companies must keep on the right side of HM Customs and Excise and the Inland Revenue by accounting for all transactions correctly and promptly.

Computerising a manual accounting system may not result in a reduction in the accountants annual fee, but most accountants will invest the time saved in accounts preparation in giving more advice and adding value to their clients business.

Organisations often live with the inefficiencies of their current accounting systems, failing to appreciate the benefits which modern accounting packages have to offer. The reason for implementing a new system is usually the recruitment of a new company accountant. The newcomer is able to see the shortcomings and inefficiencies of the system and knows what benefits a new system can bring.

Software solution in the freight industry

Report by Claire Gooding

Express service across Europe

European fast freight specialist GB Express chose its accounts package with its clients in mind. Internal needs, even the accounting, were very much driven by the rapid response which is vital to its business.

Michael Pusey, managing director, explains: "We have a rapidly-expanding European-based business and we wanted to give our customers a high level of information to integrate with their own systems. We needed to invest in information systems that would give us value-added services for our customers."

Big name clients in the electronics, automotive, chemicals and cosmetics industries "expect a high level of information that relatively few computer systems can deliver quickly," says Mr Pusey.

The three elements of integration, internationalisation and better management information drove the entire project for GB Express – "one priority was that we had to be able to steer this ship quickly. We needed the capability for management information and performance indicators – we also needed an international solution that could deal with the fiscal requirements of Spain, France, Italy and the UK."

Experience

The company had already been through a 're-engineering' process for the FreightCare project, which overhauled the freight management systems at its operational core. This project, undertaken with Unilever, the computer and information management company, and now sold as a generic transport industry solution through value-added reseller Fenestra, had given GB Express valuable experience of 1990s technology. The Freightcare environ-

ment also dictated the framework for the new accounting system: a client-server architecture, which can use a centralised database on a wide area network, with Sybase as its database.

Standards

GB Express set itself a number of standards to be met for the accounting system, including a graphical user interface on Windows, and an efficient, scalable relational database (Sybase) that would give both connectivity and upgradeability – "the client-server approach gave us the PC at the front end, a powerful client-server engine, and a large choice of readily available, affordable software options," says Mr Pusey.

"You have to be particularly careful about the architecture of the system, almost to the detriment of functionality. The cost today is so high that companies in this business sector with tight margins just cannot afford to re-engineer the same process in five years' time."

"If you get it wrong and you're on the wrong platform, you have to start from scratch. This investment is a matter of survival, and we're hoping this system will carry us forward for at least the next eight to ten years."

GBE had previously suffered a false start with a client-server accounting system which, although function-rich, proved impossible to deliver and support on international terms. Therefore, it looked very hard at the way packages reported in line with the fiscal 'plan comptable' regulations (France), and full multi-currency facilities. GB Express finally picked Lawson because of an advantage over other packages – "they call it the

'drill-around' feature – a further enhancement to the idea of 'drill-down', which expands on the component parts of a particular figure."

With 'drill-around', you can also drill vertically and horizontally, so that you can make instant comparisons. That facility is all the more valuable because it can access other non-Lawson applications running on the Sybase database."

Lawson's French implemen-

tation was done by SG2, a software division of Société Générale, which meant that GBE could be confident of a high level of quality in the French version.

There are four offices using the Lawson system. As an international partner piloting Lawson's European presence, GB Express drove a hard bargain and was able to bring in the project under £200,000 in one year.

I.T. IN BANKING AND FINANCE 1995/96

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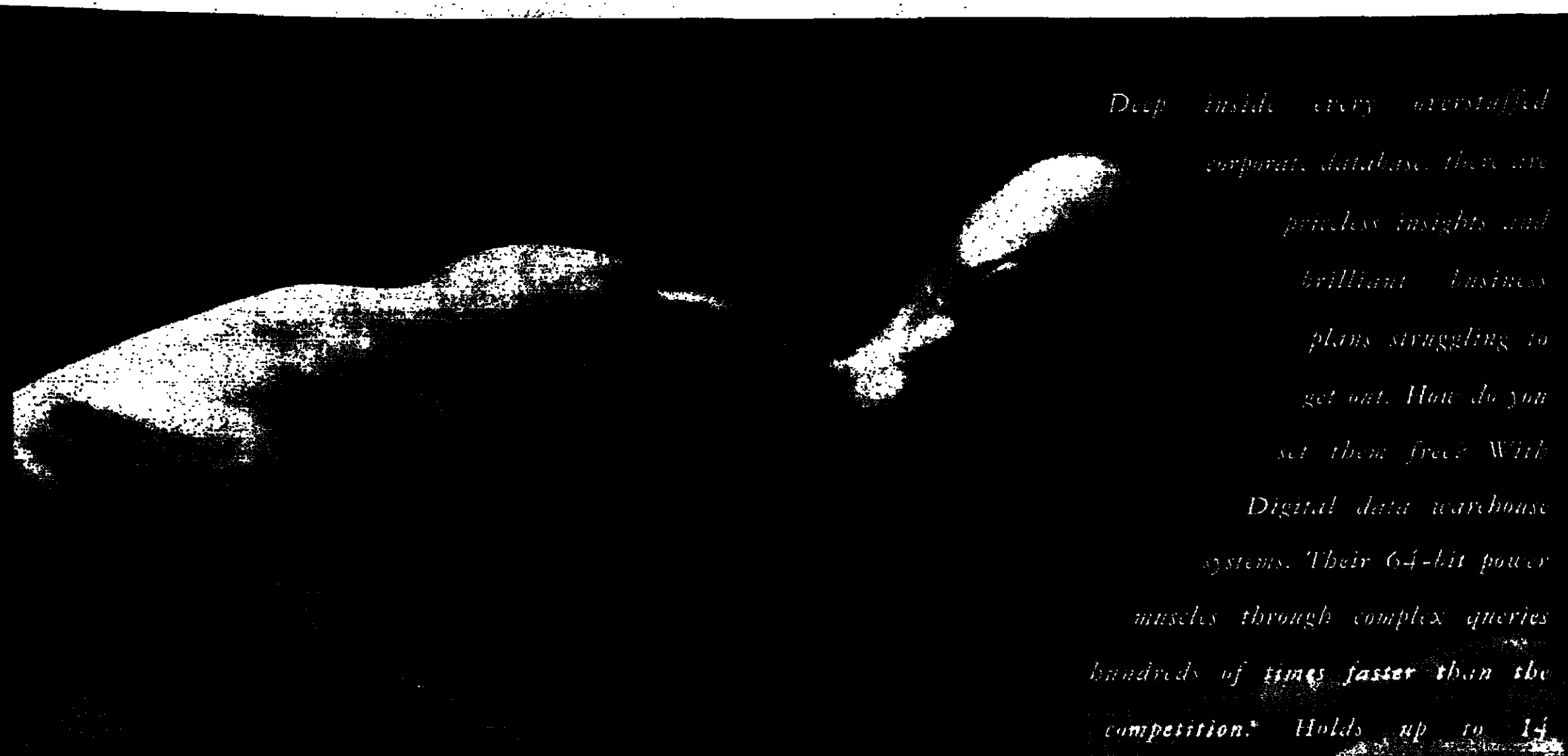
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Streamlined global accounting

Report by Claire Gooding

Securities application

Report by Claire Gooding

Quicker results, lower costs

How a leading pharmaceutical group introduced all three 'I's of accounting - integration, international operations, and better reporting information

Zeneca Pharmaceuticals could claim to be more 're-engineered' than most companies. It was created in 1993 from the de-merger of chemical giant ICI, and now comprises three businesses: Pharmaceuticals, Specialties and Agrochemicals. Its sales totalled £4.5bn in 1994, and it employs 30,000 people worldwide.

As one of the world's top 20 pharmaceutical companies, and well-established in providing prescription drugs for heart disease and cancer, Zeneca is in a fast-moving business and needs to be nimble. Its core businesses, however, needed streamlining - "we had a myriad of different systems in the accounts department, which we have now started to replace," explains Tony Pratt, manager of international business systems planning for Zeneca.

"Up to eight different systems would be called into

play between the issue of a purchase number and the logging of a final payment."

To offer more competitive pricing, the company needed to improve its efficiency and streamline its internal processes to reduce costs and overheads.

"We needed a system that would enable us to increase our internal efficiency by eliminating the duplication of data and effort and by reducing non-value-added tasks," he says. "Data should be entered once, held once, and available to all who need it."

Zeneca wanted to improve the flow of information throughout the entire business, so the choice of an 'open' accounting system was almost a foregone conclusion. Integration with other operations would enable it to control costs, and reduce overheads.

The system also had to be international, serving Zeneca's expanding network of operations in thirty or more locations.

"Greater co-ordination and consolidated reporting across all group companies would enable us to react more quickly as a global organisation," comments Mr Pratt.

Zeneca was convinced by the ability of SAP's R/3 suite to

handle different currencies and languages, and mould to very specific requirements for reporting. During 1994, the company went 'live' with various combinations of the R/3 modules for finance and accounting, sales and distribution and logistics in the UK, Ireland, the Netherlands, and Sweden.

Further projects are nearing completion in Belgium, Canada and Germany. Eventually there will be 500 or more SAP users in Zeneca worldwide by the year 2000, with each site

Consistent and timely data for management brings big advantages

making its own local choice of hardware and implementation partner. Sharing information across different departments has already shown benefits. Historically, accounts receivables had been a corporate function with the receipt of all payments being handled centrally for all three businesses within the group - "this reduced administrative costs,

but it was not an effective way of keeping on top of debt collection because the sales and distribution functions were disconnected from the accounting functions," explains Mr Pratt.

The accounts department has also streamlined its operations - "with the real-time reporting capabilities of R/3, the end of month results will be available sooner, and accountants can focus on using the data rather than compiling it".

The R/3 implementation has integrated the accounts receivable function into the pharmaceuticals business so that sales teams have direct access to up-to-date customer information, including the number of invoices raised and payments received. This, according to Mr Pratt, makes business managers in the sales and marketing areas much more cash-conscious - "there has been a dramatic reduction in the number of debtor days," he says.

The management team at Zeneca now has timely, consistent management information. It is available as a by-product of the business operation, giving quicker consolidation of group results, tighter cost-control and more effective management of the supply chain on a global basis.

Nomura's leap to freedom

Three years ago, a variety of accounting systems on disparate hardware platforms made life difficult for accountants at Nomura International

One of the largest securities houses in the world, Nomura has a network of 309 offices in 26 countries and offers a diverse spread of services including dealing, brokering, underwriting and distribution of securities.

Subsidiaries and affiliates deal with research and management of investments, and the financing of real estate and leases.

This large spread of activities made accounting and consolidation difficult to handle. The existing systems were outdated from the point of view of the European headquarters in London, which itself employs 1,000 people in the full range of investment banking services.

Worse, they were something of a strait-jacket, having been derived from Tokyo-originated head office systems with little adaptation to local conditions.

Consultants recommended that Nomura 'bit the bullet' and overhaul its technology

across the board - "there was a general recognition that we must enhance our systems to remain competitive over the next five to ten years," says Mr Ian Buchanan, director of information systems for Nomura International.

"Basically, we looked at the strategy and what was required in terms of our business objectives and decided the right technology was large-scale object-oriented development. One part of that was the accounting systems."

Nomura recruited an entire ready-made team from a rival bank, CS First Boston, which had already been through the same 're-engineering' loop.

The approach was to mix bespoke developments for middle office and trading, while using packages for the back-office, with Sun Microsystems equipment seen as "the way forward for the trading floor and the back office functions," according to Mr Buchanan.

"We chose the Dodge software for regulatory reporting and management accounting," he explains.

"Effectively, that crosses the boundaries between front and back office. One of the things we are attempting to do is make sure that key financial information is computed only once, in only one part of the

system. That means making sure that the information comes direct from the dealers: it sounds simple, but it's difficult to achieve."

That level of integrity demands that the numbers are

re-keying or reconciling, as is common in the securities industry. The Dodge software can then be used for analysis.

The system has to manage many different national regulatory requirements, and different consolidation techniques.

"Many systems really are not up to the multi-currency and multi-company requirements," observes Mr Buchanan. "Dodge's previous experience at Paribas helped, but the other key reason we chose them was the volume of processing required. We process hundreds of thousands of ledger transactions daily, and that's often lacking in package-based systems, especially in the Unix-based client-server arena."

Wider focus

The London office is piloting the accounting system for rollout across Europe, and the City system is being adapted for New York and the Far East in the more distant future.

"In this business, you can find yourself supporting global businesses without global systems, although your support responsibilities turn out to be global in any case," remarks Mr Buchanan. "That's why, although our focus is in London initially, we looked for a system that could support separate legal operating entities - multi-locality and multi-company."



Ian Buchanan: "Many software systems really are not up to the multi-currency and multi-company requirements"

fed in once, on the trading floor, flowing through to the accounting system, without being re-computed.

Nomura is trying to make sure that the product accountants spend their time productively, analysing rather than

FT-IT Review in 1996

Key themes for the coming year

In addition to our regular FT-IT Reviews in 1996, we shall be publishing two FT-IT Magazines:

- An A-Z of the Internet.
- The Semiconductor Industry.

Listed below is a provisional month-by-month outline of the main sections for the FT-IT Review in 1996 - there are no issues in January and August:

February 7

- Focus: IT in Government.
- Software: Information Flow across the Enterprise.
- IT Directions: Network-Centric Computing.
- Outsourcing: Upheavals in relationships across the IT industry.

March 6

- Focus: Converging Technologies in IT and Communications.
- Directions: Network Management.
- Software: Help Desks.

April 3

- Focus: Desktop Computing.
- IT Directions: Video-conferencing.
- Software: Statistics and Modelling Packages.

May 1

- Focus: Mobile Computing.
- IT Directions: Computer-Telephony Integration.
- Software: Voice Recognition and Translation.

June 5

- Focus: Computers in Manufacturing.
- IT Directions: ATM and Fast-Switching: the impact on business.
- Software: Risk Management.

July 3

- Focus: Networking.
- IT Directions: Multimedia in Entertainment and Education.
- Software: Internet Software Tools.

September 4

- Focus: Computers in Finance.
- IT Directions: Systems Security and Support.
- Software: Accounting Packages.

October 2

- Focus: Computers in Retailing.
- IT Directions: Business

November 6

- Focus: Technology in the Office.
- IT Directions: Advances in Document Management.
- Software: Sales and marketing systems.

December 6

- Focus: IT in the Home: Home Office Computing and Communications.
- IT Directions: Computer-aided design.

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Back issues of the FT, including the FT-IT Reviews, are available in London at £2.00 each, although certain issues for 1995 have sold out. For details, tel. 0171 873 3324.

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● FT-IT index for 1995: In the February 1996 issue we shall publish a list of themes covered in the Review since March 1995. This list is also available now by writing to the FT Surveys Secretary, at the address below.

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BSG Consulting is an independent division of Business Systems Group providing a rapid, cost-effective application development capability. BSG Consulting draws upon the breadth and depth of expertise offered by the rest of the Group, including autonomous value added fulfilment, training, support services, Networking & Systems Integration and Infrastructure & Cabling capabilities.

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3 Computasoft
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Company Description
Computasoft, based in London with offices in London, New York and Hong Kong, has built an enviable reputation providing software solutions and services to the financial markets and blue chip companies across the Globe.

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Applications
Sales Force Automation, Help Desk, Project Tracking

Computasoft

4 Corporate Computers, 1995 Centre
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Tel: 0171 377 0474 Fax: 0171 377 1730

Company Description
Workgroup Solutions has substantial proven success in the analysis, design & implementation of Lotus Notes systems, focusing on delivery of business solutions. Typical applications include:
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Corporate Computers
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5 Ginet Management Consultants
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Clifton, Bristol BS8 2SN
Tel: 0117 923 8480 Fax: 0117 923 8453

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Ginet is a firm of management consultants which specialises in building solutions to meet specific business problems using Lotus Notes. We offer a full range of services from initial systems audits through to the definition, design and implementation of total solutions.

Geography
UK & Overseas

Applications
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6 Groupware Incorporated
20 Wellerton Gardens, East Sheen,
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Tel: 0181 2557650 Fax: 0181 2557651

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Groupware Incorporated specialises in helping customers implement near shrink-wrapped Lotus Notes applications. GWI offers Groupware Office, a suite of Lotus Notes applications with a consistent look and feel. Included in the suite of ten are our flagship applications: Help Desk, Sales Force Automation, Project Tracking and a Document routing and publishing application. Also sold separately.

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7 Hadleigh Marshall Ltd
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Hadleigh Marshall specialises in the management of documentation within and between organisations. Hadleigh Marshall's 'Power' product unleashes the full potential of the international groupware standard in the business of managing documentation, by re-engineering the document management process in Lotus Notes. 'Power' is Lotus Notes template that is delivered as a shrink wrapped product, and represents the culmination of many years of research and development in the field of the document lifecycle and its management. Hadleigh Marshall remains committed to a long term development programme taking advantage of new tools and techniques for example, P3 to continually deliver a business benefit edge.

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Gloucester House, County Park,
Shrewsbury Road, Swindon, Wilt
Tel: 01793 513844 Fax: 01793 543362
41 Old Street, London EC1V 9HX
Tel: 0171 3368806

Quote from: Mervyn Marshall - GWR Group Systems Manager

Company Description
InfoSys Ltd (a Lotus Premium Partner), have developed our Newsworld Systems (based on Notes V4) and have revolutionised the way that stories and audio clips are shared across the Group.

The team at InfoSys have researched and developed what is a comprehensive solution to the process of writing and producing the local News - they are the Notes 4 experts!

InfoSys

11 Ives & Company Ltd
4/5 Avro Court, Embley Business Park,
Huntingdon, Cambs PE18 5DX, UK
Tel: 01480 433918
Internet: SEVENINFO@IVESCO.CO.UK

Company Description
Ives & Company develops business-critical Lotus Notes solutions for some of the world's leading companies: Compag, Grand Metropolitan, Philips, Broom, Royal Mail and Wells. Unique TeamStudio 'business process objects' enable more robust, better integrated Notes applications.

Hardware/compatibility
All Notes platforms, inc. Windows 3.1, 95, NT, OS/2, Mac, UNIX.

Geographical coverage
Europe (Huntingdon/Cambridge) and North America (Boston)

Applications
TeamStudio, SalesStudio, Process Studio

Based on std. day rates & runtimes.

Ives & Company

12 Knowledge Insight
Princeton Court, Falmouth Road,
Pursey SW15 1AZ
Tel: 0181 780 5522 Fax: 0181 7805533

Company Description
London-based Knowledge Insight is one of the leading providers of consultancy, implementation and systems integration services with a proven ability to integrate data across an entire organisation based on Lotus Notes.

Knowledge Insight are experts in:
- Architecture and Planning
- Large scale Lotus Notes deployment
- Migration and integration development
- Lotus Notes data integration
- Classroom and CBT training.

Knowledge Insight

13 LeSoftCo
Balling Common, Great Missenden,
Buckinghamshire HP16 9LQ
Tel: 01494 837355

Company Description
LeSoftCo: Insightful Guidance and Practical Assistance to Teams Working to Improve the Effectiveness of Business Processes

- Process Thinking, Quality Analysis and Teamworking methodologies
- Many Industries and Business functions
- LeSoftCo's Powerful yet Easy-to-use Lotus Notes-based Toolkits
- Sales & Campaign Management
- Creative Thinking
- New Product Adoption
- Process & Quality Analysis
- Information Systems Strategic Planning

Cost
Server-based Pricing, includes Mobile Users

LeSoftCo

14 Lloyd McKenzie & Partners Ltd
The Old Town Hall, 105 High Street,
Rickmansworth, Herts. WD3 1AN
Tel: 01823-773258 Fax: 01823 897292

Company Description
Notes is the de-facto 'Groupware' product for companies of all sizes. Lloyd McKenzie assists its clients with all aspects of Notes deployment, from developing strategies for Process Innovation, through 'Enterprise Deployment' to achieving real 'Collaborative Working'. As Lotus Premium Partners we deliver Consultancy, Support, Training and Notes Application Development. Call us to discuss your needs with one of our experienced team members.

Lloyd McKenzie & Partners

15 Microtransfer Limited
Park Farm, Kirtlington, Oxfordshire, OX5 3JD
Tel: +44 (0) 1869 350340
Fax: +44 (0) 1869 350069

Company Description
Microtransfer is an independent UK based consultancy and systems integrator which has extensive experience of design, development and management of distributed systems.

We offer a range of services from conception through implementation to support. These include:

- Managing the migration to distributed systems
- Designing and developing distributed applications
- Managing and supporting distributed networks
- Providing global systems support

Geographical Coverage
World-wide

Microtransfer

16 NIP Ltd
Meridian House, High Street, Crowborough,
Berkshire RG45 7AY
http://www.nipltd.com/ Tel: 01344 778783
email: info@nipltd.com Fax: 01344 772510

Company Description
Lotus Notes and the Internet are an awesome combination. Now you can harness the knowledge and creativity of your key resources, while maximising the return on your information investments.

At NIP, we build software applications that blend Notes and the Internet, enabling you to co-ordinate tasks and process; support the development of collaborative teams, and communicate key messages throughout your organisation.

Applications
Internet integration; managing business intelligence; enquiry handling; knowledgebases; database publishing; intelligent agents.

NIP

17 nexXus
Marlborough House, 82 Park Street,
Cambridge, Surrey, GU15 3NY
Tel: 01276 888800 Fax: 01276 888801

Company Description
nexXus builds vertical and cross industry applications using Lotus Notes and specialises in Insurance & Legal areas.

CaseNotes is a case management system for the legal profession that tracks the status of all types of cases. In addition to standard client usage, the product provides scheduling of critical dates of a case, highlighting overdue situations. CaseNotes can be linked to all the common desktop word processing packages and provides on-line and printed status reporting. Since it is written Notes, CaseNotes can support professionals away from the office.

nexXus

18 Office Academy Limited
Maxwell Road, Stevenage SG1 2EP
Tel: 01438 747857 Fax: 01438 360285
E-Mail: OAG@CA-Group.com

Company Description
A comprehensive Notes Solution Provider. Consultancy including workflow analysis and system specification. Development and Implementation of the optimum system to meet the requirement. Training scheduled or tailored for users, administrators and developers.

Geographic Coverage
International

OFFICE ACADEMY LIMITED

19 P & P Corporate Systems Ltd
Todd Hall Road, Haslingden,
Rossendale Lancashire BB4 5HU
Tel: 01706 217744 Fax: 01706 211401

Company Description
P & P is a leading IT Group with offices throughout the UK & in Europe. It supplies computer hardware, software & communication products along with a range of specialist consultancy, implementation & support services. The company employs over 1,300 people, over half of whom are dedicated to providing IT services.

P & P Lotus
P & P is a specialist in providing complete Lotus solutions encompassing consultancy, system design, infrastructure implementation, application development & training. P & P is a Lotus Authorised Business Partner, Notes Education & Training Centre.

P & P
making it happen

20 Prince plc
222/243 Shepherds Bush Road London W6 7AN
City: 150 Minories London EC3N 1LS
Tel: 0181 237 7220 Fax: 0181 741 0040

Company Description
Prince plc is one of the UK's leading Lotus Notes service providers and one of only a few companies to offer an integrated combination of technical support, development and training. Our services include:

- Lotus Notes System Administration levels I & II
- Lotus Notes Application Development levels I & II
- Lotus Professional Certification Programme
- Company Tailored Courses and Migration Specialists
- Lotus Notes Development and Consultancy
- Lotus Notes Help Desk Support
- Systems Integration
- Installation and Configuration

PRINCE

21 Revelation Technologies
270 Upper 4th Street,
Central Milton Keynes MK9 1DP
Tel: +44 (0) 1908 233255
Fax: +44 (0) 1908 233220

Revelation Technologies
provides the only suite of application development tools that provide native access to the rich, unstructured data of Lotus Notes. Operating on Workgroup gives users network-wide multi-user capabilities, and an active extensible repository that facilitates collaborative development; VIP is a visual programming tool for single developers who needs to create applications quickly; and Report Designer enables both novice and expert users alike to create quick but sophisticated reports.

Revelation Technologies

22 Synthetics
Church House, 18-20 Church Street,
Staines, Middlesex, TW18 4EP
Tel: 01784 885885 Fax: 01784 885886
Contact: Zoe Hinchcliffe Marketing

Company Description
Synthetics is an experienced systems integrator providing innovative and cost-effective business solutions and as such combines technical expertise with an understanding of business processes. With extensive experience providing client/server solutions, Synthetics has developed strategic applications for sales and marketing, financial services and manufacturing to include Sales Force Automation, Retail Product Catalogue and Project Tracking.

Synthetics

23 TCS
36 South Western Road,
St Margarets, Twickenham TW1 1LQ
Tel: 0181 892 4281

Company Description
We work with organisations to bring about business transformation through people. We customise our Lotus Notes-based product TOTAL PERFORMANCE MANAGEMENT - Tpm - to support continuous improvement.

Tpm integrates the disparate parts of performance management - mission statement, corporate aims, performance indicators, individual work and development objectives, appraisals, personal development plans and competency profiles - into a coherent, distributed system. The result, as our clients point out, is a "system for business excellence".

Contact: Dr Carl Thomas

TCS

24 Triangle
Triangle House, 10 Ringwood Road,
Longham, Dorset BH22 9BP
Tel: 01202 596000 Fax: 01202 596001

Company Description
Triangle's main focus is AS/400 and Lotus Notes integration and ISO 9000 Lotus Notes Solutions. Having achieved the highest ROI on a Notes implementation ever recorded (in excess of 1800%) Triangle has gone on to transfer its skills to numerous clients, with over 3000 Users of TriangleQA and a large number of AS/400 integration projects across the UK. In addition to this Triangle has in excess of 70 Notes applications that can be taken from the shelf and adapted to your requirements.

Applications
TriangleQA - A well proven approach to obtaining and maintaining ISO 9000 with considerable financial savings and dramatic business improvement. Data Pump - Provides bi-directional data exchange between AS/400 and Lotus Notes Databases.

TRIANGLE

26 Unipower
3 Mansfield Road, London NW3 2JD
Tel: +44 (0) 171 822 6623
Fax: +44 (0) 171 267 7867

Company Description
Unipower has the best in Notes consultancy and development. We bring you 5 years of experience developing applications for both small and large groups and global networks of up to 20,000 users. Turn to us for rapid applications development, expert infrastructure advice and complete implementation services. We can also help you with integrated solutions using Oracle, Multimedia and the Internet.

Geographical Coverage
Offices in London, Paris and New York.

Applications
Project Management - including project documentation, basic task mgt and charts of Notes based data.

Unipower

LOTUS SOFTWARE MARKET REPLY SERVICE

- Altis Consulting
- Business Systems Group
- Computasoft
- Corporate Computers
- Ginet Group
- Groupware Incorporated
- Hadleigh Marshall Ltd
- Harley West Training
- Infosys Ltd
- Ives and Company
- Knowledge Insight
- LeSoftCo Ltd
- Lloyd McKenzie & Partners Ltd

- Microtransfer Ltd.
- New Information Paradigms Ltd
- The Nexus Group
- Office Academy Ltd.
- P & P Corporate Systems Ltd.
- Prince plc
- Revelation Technologies Ltd.
- Synthetics Ltd.
- The Performance Management Group
- Total Computer Systems
- Triangle Computer Services Ltd.
- Unipower Systems Ltd.
- Lotus Business Partner Programme

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London SE1 9HL

Name

Company Name

Position in Company

Address

Postcode

Telephone

27 Lotus Business Partners

Lotus Business Partners are organisations that have demonstrated a high level of accomplishment on the Lotus product range. Their areas of expertise include Application Development, Systems Integration, Consultancy, Training, Support and Reselling. They have been awarded Lotus Business Partner status to enable you to identify them as organisations that have the necessary knowledge and expertise to help you with your business software solutions requirements. There are over 10,000 Lotus Business Partners world wide, some of which are included on this page. They can all help you to implement solutions based on Lotus Notes, the groupware standard.

Call a Lotus Business Partner and the help you need is only a phone call away.

Lotus
BUSINESS
PARTNER

SOFTWARE & IT SERVICES MARKET Accounting, Finance & Business Systems

1 Accounting Logistics & Costing

2-4 Accounting

5 Accounting & Administration Software

Accounting

6-7 Business Management Systems

8 Business Systems

9 Distribution Solutions

10 Finance Solutions

11-13 Accounting Software

14 Advanced client/server Accounting Solution

15 Business Solutions

16-18 Business Solutions

19 Client Accounting and Distribution Software

20 Corporate Accounting

21 Distribution Manufacturing and Financial Solutions

22 European Accounting & Business Systems

23-24 Financial & Accounting

25 Financial Accounting & Management Information Systems

26 Financial Accounting Software

27 Client/Server Financial & Business Management Software

28 Financial Management

29 Financial Management

30 Financial Software

31 Financial Software (Windows)

1 De Facto

Fresno, 5 The Rutherford Centre
Dunlop Road, Ipswich IP2 0HB
Tel: 01473 230202 Fax: 01473 230247

Product Description
Multi-user DE FACTO offers unprecedented flexibility in 11 integrated modules. Providing Multi-currency, Multi-company, Multiple open periods & years, Commitment accounting, Multi-warehouse, Multi-Language, Multiple units of measure & pricing, Serial & Lot No. tracking, Contract & Job Costing.

Hardware
Cross platform, Windows, Windows 95, Windows NT, Mac OS.

Geographical Coverage
Worldwide

Applications
Accounting, Logistics & Costing

2 Exchequer Software Ltd.

1 West Hill Place,
Commercial Road, Bournemouth BH2 5NX
Tel: 01202 298008 Fax: 01202 298001

Company Description
Exchequer is a highly innovative accounting system. It is the pioneer of features such as "Drill-Down", "Non-Destructive Periods-ends" and "Hot Keys". It also has excellent Multi-Currency features. In a review the FT quoted Exchequer as "an astonishing package... taking accounting s/w into a new era. User includes M&S, Oxford Univ Press, Hasbro, BASF, call NOW for details.

Hardware
PC, Novell & PC LAN's.

Geographical Coverage
Worldwide

Applications
S/L, P/L, N/L, C/B, SOP, POP, Stock, BOM, R/W, Import.

3 Systems Union Limited

1 Hammersmith Broadway
London W6 9DL
Tel: 0171 312 4545 Fax: 0171 312 4548

Company Description
SunSystems is the complete, international, client/server business solution from Systems Union. Installed by over 10,000 companies in over 160 countries, its global application is enhanced by: full multi-company and multi-currency processing and availability in 22 languages.

Hardware
PC-Lans, Unix, Vax, NT, Windows 3, Windows 95.

Applications
SunAccount, SunBusiness

Cost
On application.

4 Kewill-Omicron

Case House, 80-85 High Street,
Wotton on Thames KT12 2GS
Tel: 01832 248328 Fax: 01832 221662

Product Description
DYNAMICS is a multi national, multi currency accounting system designed specifically for Windows. It has a huge range of features including drill down enquiry, background processing, unlimited budgets and history on line, DOE support and a WYSIWYG Report Writer. The Modifier allows all screens and menus to be tailored. A linking Toolkit allows integration with other applications.

Hardware
Windows, Networks, Macintosh, Win 95, Client Server, NT.

Geographical Coverage
Dynamics is available in the UK, USA and worldwide.

Cost
£25-£50k

5 Lakeview Computer plc

Banks House, Banks Lane
Bexleyheath, Kent DA6 7BH
Tel: 0181 3033329 Fax: 0181 3036089

Product Description
Lakeview LM software provides integrated financial accounting, order processing, sales analysis and stock control. LM is supplied and supported directly by Lakeview, usually as part of a complete system, with full after-sales support services. LM is a UK product, winning critical acclaim as being "a generation ahead" of the international competition.

Hardware
Runs on 80% of all current computer systems

Geographical Coverage
UK, Europe, USA

Applications
Distribution, manufacturing, wholesalers, service industries, plus many specialised applications

Cost
5 user software-only from £5,850

6 Navision UK Ltd

5 Petworth Road
London N12 9HE
Tel: 0181 4461458 Fax: 0181 4466302

Company Description
NAVISON UK Ltd develops and markets the NAVISON range of object oriented, client-server accounting and business management software. The NAVISON product was one of the top ten "most popular" at last year's COMDEX and NAVISON Financials is the first accounting solution to be "Designed for Windows 95". NAVISON have a reputation for leading edge development that delivers practical solutions to companies accounting requirements.

Hardware
Unix, DOS, OS/2, Windows 3.1x, NT, 95.

Coverage
Over 25,000 installations worldwide.

7 Scala International

Scala House, 23-24 Bourne Court
Woodford Green, Essex IG8 8HD
Tel: 0181 550 1994 Fax: 0181 551 7429

Product Description
The International Scala Group develops and markets Scala, Accountancy Age's Accounting Software of the year 1994, which is a fully multi-lingual, multi-currency business management and accounting system. Supported from 64 offices worldwide, in 30 different languages, Scala is extremely flexible offering specific parameterisation and powerful multi-dimensional capabilities.

Hardware
IBM compatible PCs, Networks, All Unix systems.

Geographical Coverage
Worldwide - 12,000 installations in 92 countries.

Applications
Scala Financials, Logistics, Business and Manufacturing, available in DOS, Windows and Unix Versions.

Cost
Price on application

8 Access Accounting Ltd

The Old School, Stratford St Mary
Colchester, Essex CO7 6LZ
Tel: 01206 322575 Fax: 01206 322956

Company Description
Don't invest in an accounts system until you've had a demonstration of ACCESS ACCOUNTS - the most fully featured software for a graphical user interface. Three versions available to suit any size of organisation, including client/server for enterprise-wide accounting. Proven by over 5,000 UK companies today. Full information pack available.

Hardware
Windows, Macintosh, Novell, Unix, Oracle servers and Windows NT

Geographical Coverage
65 consultancy-style specialist centres nationwide

Applications
Ledgers, stock, costing, payroll

Cost
Client/Server version £7,500-85,000
Network version £ 995-10,000
Single user version £ 300-1,000

9 Strategix Solutions

TIS Software Limited, Regatta Place,
Marlow Road, Bourne End, Bucks SL8 5TD
Tel: 01628 532565 Fax: 01628 532514

Company Description
STRATEGIX is an integrated suite of business software applications developed by the MISYS Group of Companies. At Software '96 January, we will be giving three demonstrations in Room 24: STRATEGIX - an overview of key business functions. STRATEGIX-A British solution for European business. STRATEGIX & COGNOS-Business intelligence for decision makers.

Hardware
UNIX Server with optional Windows GUI Client

Geographical Coverage
UK, Western Europe

Applications
Fully integrated Accounting, Distribution, Assembly Manufacturing, Project Accounting and Service Management solutions.

Please visit us at Software in accounting and Finance '96 Stand 592, Demonstration Room:24

10 JBA

Needles House, Birmingham Road
Studdley, Warwickshire CV8 7AS
Tel: 01527 496444 Fax: 01527 496230

Company Description
JBA System 21 Financials streamline the processes of exception analysis, performance measurement, budgeting and forecasting. It also guides users through the maze of legal, accounting and taxation differences of the global marketplace. System 21 contains modules to cover every area of an organisation's financial operations, both now and into the 21st Century.

Hardware
Multi platform

Coverage
Worldwide

Applications
Accounting, Customer Service, Distribution and Production, with specific software for the Drinks, Apparel, Plant, Tool and Equipment hire industries.

11 Management Information Centre Ltd

St Andrews, The Belfry
Colonial Way, Watford, Herts WD2 4WH
Tel: 01923 422600 Fax: 01923 422636

Product Description
VIZIOPIA is the only true Windows™ Accounts production suite. The system boasts basic cash book/terminal ledger data entry, bought ledger, sales ledger, invoicing, management reporting and statutory accounts. Options are available for group accounts and audit journal tracking. Regular updates ensure total compliance.

Hardware
Minimum system requirements 8Mb RAM, 486dx, Windows v3.x or later

Geographical Coverage
Worldwide

Applications
Professional accountants and clients

12 Software Architects Int'l Ltd

Enterprise House
The National Technological Park, Limerick
Tel: 00353 338118 x4052

Company Description
Why do some of the world largest corporations use Cashbook? Cashbook, Cash & Treasury Management provides key business solutions such as Automatic Electronic Bank Reconciliation and Treasury Forecasting. CASHBOOK complies Corporate accounting systems which typically lack Cash management functionality. CASHBOOK fully integrates with all ledgers.

Hardware
AS/400 & Client Server

Geographical Coverage
Global

Applications
BPCS™, Software 2000™, Hoskyns Financials™

13 Genesys Management Systems Ltd

Glebe Barn, Cuxham Road
Watlington, Oxon OX9 5NB
Tel: 01491 614466 Fax: 01491 614300

Product Description
The Genesys Business System is not just another accounting package but is a complete business solution covering full accounts modules with order processing - sales & marketing, all linked to word processing and office automation software. Developed under Unix with a Windows 95 front-end, the software will run on almost any hardware platform. A mid range system at an affordable price. Full consultancy, training, tailoring and support from a team of specialists. Also software for plant and tool hire industry.

Hardware
Any UNIX based system

Geographical Coverage
Full UK & European coverage

Applications
S/L, P/L, N/L, SOP, POP, Stock, BOM, R/Writer

Price range for S/W £10k+

14 Calidus

Elbury Gate, 23 Lower Belgrave Street
London SW1W 0NW
Tel: 0171 7302277 Fax: 0171 2599870

Product Description
Calidus is a powerful client/server accounting solution available on a highly cost-effective platform which offers ease of use and low cost of ownership. It combines an open technology environment with business intelligence tools and the latest relational database technology.

Hardware
PC Windows 3.11 & 95, Client, VAX, Unix (Server)

Coverage
UK

Applications
obs financials and obs distribution

15 Arbor Software Ltd

Abrium Court, Apex Plaza
Reading RG1 1AX
Tel: 01734 566749 Fax: 01734 560380

Company Description
"Easbase cuts days from forecasting and budgeting cycles, but more importantly helps us to control expenses. We have actionable data. We're improving management accountability which translates directly to greater control over the business."

Hardware
Express

Coverage
Europe, American

For written information about how Easbase can help your business please contact Chris Hill, Marketing Director, or email chris@arborsoft.com

16 Britannia Software Plc

Astra House, Arklow Road, London SE14 6EB
Tel: 0181 8949484 Fax: 0181 8914581
E-Mail: mjpherson@britsoft.co.uk

Company Description
For over a decade Britannia has been designing, developing and implementing the UK's leading Asset and Property Management Solutions. With over 1300 customers, 50 of whom are in the TIMES TOP 100, Britannia is the de facto standard. Our flexible specialist approach to design gives our customers an individual tailored solution. With Britannia there is no compromise.

Hardware
Open Systems, AS/400, Unix, PC, DEC-VAX Links to any General Ledger

Geographical Coverage
27 Countries inc. Germany, Belgium, Hungary & South Africa.

Applications
Asset & Property Management, Facilities & Plant Management, Bar-Coding & Asset Tracking

FOA

17 Movex (UK) Limited

Savile House, Savile Road,
Eland, Yorks YO1 5NU
Tel: 01422 377611 Fax: 01422 310109

Company Description
Integration, flexibility, ongoing and proven development path, real commitment to high quality international service and support are just some of the reasons why over 1100 major companies have chosen MOVEX software - often to support BPR and RightSizing. Over 80% of MOVEX's sales are to pan-European companies, producing a turnover of £24 million per annum.

Hardware
IBM AS/400. GUI includes Windows and OS/2. Price on application, includes user input to development.

Geographical Coverage
45 Offices worldwide.

Applications
Truly integrated manufacturing, financial and distribution software. Strategy includes OOT and Client/Server.

18 MR-Data Management Group Plc

47 Bastwick Street,
London EC1V 3PS
Tel: 0171 250 3377 Fax: 0171 250 1873

Company Description
MR-Data Management Group provides comprehensive facilities management and outsourcing for data management requirements. Services include: image and data capture, electronic printing, secure off-site data storage and market leading Memex software.

Hardware
All major systems

Geographical Coverage
UK, USA, Middle East

Applications
All image and computer data.

19 Lawson Software

Capital Place, 120 Bath Road
Hayes, Middlesex UB8 3AN
Tel: 0181 754 5470 Fax: 0181 754 7788

Company Description
Lawson Software offers robust, client/server applications with proven business benefits for companies worldwide. Lawson has 20 years of experience in developing business applications, with high-end, corporate functionality. Combining that experience with a unique underlying development technology strategy, Lawson offers future proof solutions - offering both high-end functionality and openness and integration to the newest technologies.

Hardware
AS/400, RS6000, HP9000, DEC Alpha, Sun, Sequent, U6000

Applications
Accounting, Distribution Management, Materials Management, Lawson Tools and Open Enterprise Desktop.

Coverage
FT 2000

20 Time (Open Systems) Ltd

Montague Place, Quayside,
Chatham Maritime, Kent ME4 4QU
Tel: 01634 895000 Fax: 01634 890248

Company Description
TIME are the UK authors of the innovative TRI-O Financial Management System designed for large corporate and public sector organisations. TRI-O offers true client/server, RDBMS independent applications providing a choice of Windows and/or Character based interfaces, in a unique Rules Base development environment.

Hardware
All major open system suppliers

Coverage
TIMES 1000

Applications
TRI-O Financial Ledgers, Project Costing, Procurement/Commitment Accounting, and Asset Management

21 Minerva Industrial Systems plc

Bovis House, Lansdown Road,
Cheltenham, Glos GL50 2JA
Tel: 01242 242566 Fax: 01242 236107

Company Description
minerva INDUSTRIAL SYSTEMS PLC
minerva is a wholly owned subsidiary of IBS AB, a Swedish public company and one of the leading software suppliers with over 3000 customers worldwide. The ASW Portfolio is a full range of application software with a GUI interface providing innovative solutions to today's business needs. Including Pan European requirements and EuroVAT acting in a true Multi currency environment.

Hardware
AS/400 Client Server, Windows and OS/2 GUI support.

Geographical Coverage
Worldwide multi-lingual

Applications
Integrated solutions for manufacturing industry MFGPRO, Progress, Oracle.

22 International Business Systems

1 Imperial Place, Elstree Way
Borehamwood, Herts WD8 1JN
Tel: 0181 2075555 Fax: 0181 2076770

Company Description
IBS is a wholly owned subsidiary of IBS AB, a Swedish public company and one of the leading software suppliers with over 3000 customers worldwide. The ASW Portfolio is a full range of application software with a GUI interface providing innovative solutions to today's business needs. Including Pan European requirements and EuroVAT acting in a true Multi currency environment.

Hardware
AS/400 Client Server, Windows and OS/2 GUI support.

Geographical Coverage
Worldwide multi-lingual

Applications
Financials, Distribution, Inventory, Asset, Service, Production, Manufacturing, Project, Warehouse Management, EIS and FMCG.

23 PeopleSoft UK Ltd

Apex Plaza, Reading,
Berkshire RG1 1AX
Tel: 01734 522 000 Fax: 01734 522 001

Company Description
PeopleSoft develops and markets PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution and PeopleSoft Tools, a powerful application development and customisation environment. PeopleSoft combines graphical user interface, relational database technology, and client/server architecture to deliver superior product functionality and technologically innovative applications, with the best customer service in the business.

Hardware
IBM, Digital, Hewlett Packard, Data General, SUN, NCR.

Geographical Coverage
Fortune 500 and Fortune 1000

Applications
PeopleSoft Financials, PeopleSoft HRMS, PeopleSoft Distribution, PeopleSoft Manufacturing.

24 Pegasus Software Ltd

Orion House, Orion Way
Kettering, Northants NN16 6PE
Tel: 01536 495200 Fax: 01536 495201

Company Description
A leading supplier of accounting solutions from the small business to medium sized companies requiring a tailored solution. Pegasus also supply integrated sales and marketing, manufacturing and EDI solutions linked to the financial core. Pegasus have solutions for the DOS, Windows or networking environment.

Hardware
IBM, Digital, Hewlett Packard, Data General, SUN, NCR.

Geographical Coverage
United Kingdom

Applications
Accounting/Business

Cost
From £500

25 McDonnell Information Systems

Boundary Way
Hemel Hempstead, Herts HP2 7HU
Tel: 01442 274051 Fax: 01442 274827

Company Description
PRO-IV Financials combines high levels of functionality with ease of use. Its flexible and unique multi-dimensional coding structure accommodates any chart of accounts across both public and private sectors. The 'single ledger' design and 'super drill-down' facility provide instant access to information at all levels.

Hardware
Compatible with most hardware, operating systems and databases.

Coverage
MDIS offices throughout the UK and worldwide.

Applications
Sales, Purchase, Nominal, Cashbook, Fixed Assets, SOP, POP and Stock.

Cost
Price on Application.

26 CODA Group plc

Cardale Park, Beckwith Head Road
Harrogate HG3 1RY
Tel: 01423 509999 Fax: 01423 524636

Company Description
The CODA Group develops, markets and supports high-functionality accounting software to national and multinational companies throughout the world. From 26 wholly owned offices, CODA supports over 1300 licences worldwide in medium to large organisations.

Hardware
CODA-Financials are available in versions each written specifically for the world's leading technical environment.

Geographical Coverage<

SOFTWARE AND IT SERVICES

- 1 Asset Management
- 2 Automated Data Capture
- 3 Bar Code Label Printing Software
- 4 Business Process Re-Engineering
- 5 Computer Systems Integration

1 Harcat Systems (UK) Ltd
4 High Street, Chobham
Woking, Surrey GU24 8AA
Tel: 01276 855555 Fax: 01276 855300

Company Description
Harcat for Windows is designed to help medium and large corporations to track all their fixed assets, but particularly IT equipment.

Hardware
Minimum 386DX PC with 8Mb memory and VGA card, running Microsoft Windows. Available as standalone or network. Client Server with ODBC available soon.

Geographical Coverage
Harcat for Windows is sold and supported worldwide.

Applications
Asset Management, Help Desk, Barcode Auditing, Purchase Ordering, Depreciation.

2 CIC Ltd
Portland House, London Road, Bagshot,
Surrey GU19 5PG
Tel: 01276 453105 Fax: 01276 453108

Company Description
Automated data capture from hand written forms via ICROCR/OMR character recognition. Document processing, imaging, storage and retrieval. High traffic ISDN computer linked fax systems.

Hardware Compatibility
PC/Win/Win 95/NT.

Geographical Coverage
UK & Europe.

Applications
Teleform ICR.

3 Professional Software Solutions Ltd
The Beeches, Church Harborough,
Widney, Oxon OX5 8AB
Tel: +44 1993 881584 Fax: +44 1993 883363

Product Description
Meditia is a bar-coded label printing system for designing label formats online and integrating bar-coded label printing into application software using host data and without programming. It drives directly attached, industry-standard thermal barcode printers but can also output to laser, inkjettable jet or dot matrix printers. All processing is host based with no PC required.

Hardware
IBM AS/400, AS/36 and S/36

Coverage
UK and Europe

Applications
Manufacturing, Warehousing & Distribution & Retail

Cost
From £2,500

4
Glen House, 200-208 Tottenham Court Rd,
London W1P 9LA
Tel: 0171 3234770 Fax: 0171 6319867

Product Description
BPWin is a Windows based Business Process modelling tool that has been used by organisations like NATO, Siemens, Citibank and BP Oil to define and optimise their business processes. BPWin has analytic tools and activity based costing to help eliminate redundant or inefficient activities, reduce costs, and improve quality.

Hardware
Intel 386, 486 or Pentium running Windows 3.x.

Coverage
UK and Ireland

Costs
£2085 list price

5 Pacific Systems International
European Headquarters, Kingfisher House
Frimley Business Park, Frimley, Camberley
Surrey GU16 5SG Tel: +44(0)1276808800
Fax: +44(0)1276822250

Company Description
Pacific is a computer systems integration company specialising in building and implementing bespoke software solutions across a variety of platforms and industries. We have particular skills in client/server development, workgroup computing, systems integration, networking, facilities management and automated operations.

Hardware
AS/400
PC LANs
UNIX

Coverage
International

- 6 Database Query Tool
- 7 Data Storage
- 8 Data Storage & Retrieval
- 9 Enterprise Applications
- 10 Geographical Information Services

6 Xyratex
P O Box 6, Langstone Road
Havant, Hampshire PO9 1SA
Tel: 01705 443177 Fax: 01705 492228

Product Description
XY-Query provides the fastest access to enterprise data and ADS data. While the Query Builder hides complex SQL syntax from end users, power users can still write in native SQL. Data can be formatted into informative reports complete with breaks, calculations, different fonts and colours, or charted in different styles.

Hardware
OS/2, Windows, AIX, ODBC

Coverage
Worldwide

Applications
£140 for single user, volume discounts available

7 Xyratex
P O Box 6, Langstone Road
Havant, Hampshire PO9 1SA
Tel: 01705 498851 Fax: 01705 498853

Company Description
Xyratex is Europe's largest disk drive manufacturer offering a range of fault-tolerant storage subsystems and removable storage. Xyratex is a world leader in Serial Storage Architecture (SSA), devised as a higher performance interface compared with SCSI.

Hardware
Enterprise storage specialist - PC networks/UNIX

Coverage
Europe and USA

Applications
Finance, Banking, Broadcasting, Photographic, Advertising, A/V, Defence, Central and local Governments, Police, Libraries & Museums, Insurance & Manufacturing

8
Alba House, The Mulberry Business Park
Wokingham, Berks RG41 2GY
Tel: 01754 771588 Fax: 01754 771709

Company Description
Memory Technology are leading suppliers of Data Management products, data storage and services, offering consultations on network design requirements, data storage health checks and full range of storage products including tape hard disk, optical CD Rom and CD recording equipment, application software and network management.

Hardware
DAT & DLT Autoloader, DLT Optical Jukebox, CD Rom Jukebox, Parallel Port Interface, storage systems for Unix, AppleMac, Novell, Windows NT and OS/2

Coverage
UK, Eire

Applications
Any Data Management Areas.

9
Frimley Business Park
Camberley, Surrey GU16 5SG
Tel: 01276 692111 Fax: 01276 692135

Company Description
With over 7,000 client implementations, SPICS Client/Server represents the world's largest installed base for a single enterprise-wide product line addressing integrated process and discrete manufacturing, supply chain management, and global financial applications.

Hardware
As 400, RS 6000, HP9000, Digital Alpha.

Coverage
Over 40 offices worldwide.

10
14/15 Regent Parade, Harrogate
North Yorkshire HG1 5AW
Tel: 01423 590054 Fax: 01423 525545

Company Description
Tactician UK are the master distributor for the Tactician range of desktop sales and marketing mapping software. With integrated client server technology and focused design for business applications, Tactician is the essential choice for corporate - wide mapping.

Hardware
Windows, Windows NT (Intel and Alpha), Macintosh

Coverage
United Kingdom and Europe

Applications
Retail, territory and demographic analysis

Cost
From £1000

- 11 Helpdesk
- 12 Helpdesk & Support Systems
- 13 Human Resources
- 14 Image & Workflow Solutions
- 15 Interworking

11 FMI Systems Limited
Greenstead-House, Station Road,
East Grinstead, Sussex RH19 1UZ
Tel: (01342) 326000 Fax: (01342) 326080

Company Description
HDE for Windows provides IT Management with a comprehensive high performance, Help Desk and Resource Management System that addresses today's requirements for Distributed Systems Management. HDE includes a knowledge-based Help Desk, extensive problem management and change management capabilities and a comprehensive management information system.

Hardware
HDE is a PC based software system. Prices start at £5,000.00

Geographical Coverage
HDE is sold in UK, Europe and USA

Applications
The management of Internal and External Help

12 WorkGroup Systems Limited
10th Floor, Maple House
Potters Bar, Hertfordshire EN6 5BS
Tel: 01707 664466 Fax: 01707 661250

Company Description
Quetzal is the world's leading PC-based help desk and asset management system designed for the Windows environment. Quetzal allows a variety of users to manage the entire customer support requirements of multi-site organisations. Quetzal caters for all aspects of help desk management, including call logging, inventory, problem tracking, reporting and management of service level agreements.

Hardware
Networked or standalone PC

Geographical Coverage
UK, Europe, Israel, North America, Australasia, South Africa.

Applications
MS/DOS, Windows and OS/2

13 Real Time Consultants Ltd
118-120 Warwick Street, Leamington Spa
Warwickshire CV32 4QY
Tel: 01926 313133 Fax: 01926 422165

Company Description
Real-Time Consultants is a leading supplier of specialist sub-contract human resources to the Financial, Telecommunications, Military, Electronics and Manufacturing industries. It has over 17,000 freelance staff with skills ranging from programmer to senior consultant in areas such as software development and systems engineering.

Geographical Coverage
UK, Europe, Worldwide

Applications
Real time and Technical

14
Grant Thornton House, 46 West Bar
Banbury, Oxon OX16 9FZ
Tel: 01295 261616 Fax: 01295 252243

Company Description
We are a specialist supplier of Document Management solutions and services. Our skills have been gained through hands-on involvement in many successful Image and Workflow implementations in most industries.

We believe that these systems should be integrated with business processes, providing departmental and enterprise solutions which deliver tangible benefits in mission critical areas.

We offer consultancy in all areas of Document Management, together with complete turn-key solutions, providing the highest level of customer service.

15 Xyplex
2 Manor Court, High Street
Hammonds Worth, Middlesex UB7 0AQ
Tel: 0181 7591633 Fax: 0181 7591638

Company Description
Xyplex is a leading vendor of high performance networking systems that enable both local and remote users of computing equipment to exchange information and share resources. A full range of award winning Hubs, Switches, Routers, Integrated ISDN, Access servers and Management provides complete LAN-LAN and LAN-WAN connectivity.

Hardware
Full Standards compliance including CE and ISO 9000.

Coverage
Worldwide sales & support, with full UK coverage.

Applications
Internet access to Desktops.

Costs
Price dependent on configuration.

- 16 IT Recruitment Services
- 17 LAN Infrastructure
- 18 LCD Projection
- 19 Manufacturing & Supply Chain Solutions
- 20 Network Management

16 Elan
93 Norman Street
London W1P 4DS
Tel: 0171 8301300 Fax: 0171 8301333

Company Description
Established in 1987 Elan provides IT and communications recruitment services. Acknowledged as one of the City's leading suppliers with over 10,000 financial specialists registered, we have a real understanding of IT consultancy requirements.

Hardware
All

Coverage
Across the UK, Europe, Far East, USA

Applications
All

17 Optical Data Systems UK Ltd
Unit 1, Ancella Court, Ancella Business Park,
Fleet, Hampshire GU13 8UY
Tel: (44)1252 812030 Fax: (44)1252 812031

Company Description
ODS develops and manufactures intelligent hubs and related computer networking products which allow customers to create highly reliable, fault tolerant and scalable networks. This is particularly important in financial institutions and Dealing Room environments. ODS equipment is used in one of the largest FOREX dealing rooms in the City. ODS products are distinguished by having superior network management capabilities, integration of best of breed technologies in routing, switching and ATM. ODS has already installed the largest ATM network in the world.

Hardware
ODS products are compliant with all internationally recognised standards.

Coverage
ODS UK covers mainland UK, including the Channel Islands, and Northern Europe. Local Area Networks, Wide Area Networks, Metropolitan Area Networks.

18 InFocus (UK) Limited
Unit 1, Ancella Court, Ancella Business Park,
Fleet, Hampshire GU13 8UY
Tel: 0500 213300 Fax: 0181 2132121

Company Description
InFocus LCD projectors connect directly to PCs and display the PC images on any white surface from 2 ft to 20 ft square. 35mm slides are dead. Everyone has PowerPoint. Just create your presentation on your PC and present it to your audience, instantly, using an InFocus LCD projector. Call today. Project tomorrow. Ask for free trial.

Hardware
PC, MAC and Workstations

Coverage
Worldwide

Applications
Anyone wishing to show their computer images to an audience of more than 3 people.

19
Unit 1, Falcon Business Park, Ivanhoe Road,
Farnborough, Hampshire GU14 4DD
Tel: 01704 721161 Fax: 01704 724999
E-mail: sales@barrier.com WWW: http://www.barrier.com

Company Description
CSI are a leading IBM Business Associates specialising in applications for IBM AS/400, RS/6000 and Client/Server environments. Applications include BPCs for manufacturing and supply chain companies, CIEL for logistics companies and the award winning customer service products (CSP). For free information pack, please call CSI Customer Service on (0846) 010105.

Hardware
IBM, AS/400, IBM RS/6000, PC & client/server platforms

Geographical Coverage
All offices supporting Europe, USA, S Africa and Australia.

Applications
Manufacturing, Supply chain & logistics.

20
Unit 1, Falcon Business Park, Ivanhoe Road,
Farnborough, Hampshire GU14 4DD
Tel: 01704 721161 Fax: 01704 724999
E-mail: sales@barrier.com WWW: http://www.barrier.com

Company Description
Harrier Software distribute open networking software products designed to provide interoperability between dissimilar computer systems such as DEC VAX & Alpha, PC DOS, Windows & NT, UNIX and Novell Networks. The integration products that we supply and support utilise industry standard protocols such as TCP/IP, NFS and IPX/SPX, they include TGV's MultiNet, MultiWare, Phase/IP and SecureNet.

Hardware
Harrier products link systems such as DEC VAX & Alpha, PC DOS, Windows & NT, UNIX and Novell Networks. Costs are available on request.

Geographical Coverage
Harrier have offices in Berkshire and La Defense, Paris.

Applications
Products allow dissemination of information from one proprietary system to another.

- 21 Network & Software Solutions
- 22 Printers
- 23 IMS Development & Testing
- 24 Sales & Marketing
- 25 Sales & Marketing

21 Xyratex IT Consultancy Group
P O Box 6, Langstone Road
Havant, Hampshire PO9 1SA
Tel: 01705 443177 Fax: 01705 492228

Company Description
Xyratex IT Consultancy (a former division of IBM) provides network and software solutions to a broad range of industries. Consultants have multi-vendor skills providing technical consultancy, solutions development & integration, project management and support.

Hardware
Novell, IBM, UNIX, OS/2, Windows

Coverage
UK

Applications
Banking, Engineering, Retail, Defence

22 Mannesmann Tally Ltd
Molly Millers Lane, Wokingham,
Berks RG41 2DT
Tel: 01734 789711 Fax: 01734 791491

Company Description
Tally is dedicated to the supply of computer printer solutions. With a proven reputation for quality and reliability the product range includes Line, Laser, Inkjet and Dot Matrix printers to meet all your printing needs, with the peace of mind of comprehensive after-sales support. Contact Mannesmann Tally to find out more.

Coverage
UK, Africa, Middle East, Asia

23 FaxBack Limited
Fairfield House, 24 High Street,
Great Beckham, Surrey KT22 4AG
Tel: 01372 450335 Fax: 01372 450338

Company Description
FaxBack systems first developed at Intel. Callers from any telephone phone proceed through a simple voice-prompts menu keying in numbers of documents requested plus their fax no. and the information is faxed immediately documents created from any Windows application. Can also transmit files. Call 24 hour hotline 01372 450335.

Hardware
Software & cards for typical 4 line £8500 requires 486PC

Geographical Coverage
Worldwide Blue Chip user list

Applications
Unlimited brochures datasheets maps forms price lists etc.

24 Saratoga Systems
Coworth Park House, Coworth Park
Ascot, Berkshire SL5 2EL

Company Description
Saratoga Systems is a leading developer and supplier of account management and sales automation software across all industries. We offer solutions specific to each organisations requirements, without time consuming programming, resulting in a very high ROI. With more than 500 customers worldwide, the package has proven itself to be a very cost effective solution.

Hardware
PCs 86/600, 386/Windows, UNIX, IGM/MVS 6850, per user for 100+ users.

Geographical Coverage
Worldwide multilingual

Applications
Enterprise wide sales & Marketing management, sales force automation.

25 Softa & Co Ltd
11 London Road, St Albans
Herts, AL1 1LA
Tel: 01727 863234 Fax: 01727 844154

Company Description
As the leading sales & marketing systems consultants, SOFTA build flexible software solutions based on proven, best practice methodologies. Services include: sales & marketing & business strategy consultancy & systems integration project services. Our service portfolio ensures the fastest route to the delivery of identified business benefits.

Hardware
PC Architecture, Microsoft Windows, Windows NT, Client Server Databases.

Coverage
UK & Europe

Applications
Software components for all key sales & marketing processes.

- 26 Sales & Marketing Information
- 27 Software Development
- 28 Systems Management

26 Geoplan
14/15 Regent Parade, Harrogate
North Yorkshire HG1 5AW
Tel: 01423 595538 Fax: 01423 525545

Company Description
Geoplan in association with Royal Mail, are the only UK company dedicated to the exploitation of postcode information for competitive advantage. From hardcopy paper maps to postcode marketing publications to digital data for analysis within a wide range of analytical software, Geoplan offer the products and services to assist in strategic and tactical business analysis.

Hardware
N/A

Geographical Coverage
United Kingdom

Applications
Sales, Marketing

27 Software Developers Forum
Techs, Technologies & Techniques
31 January - 1 February 1996
Olympia 2, London

Aimed at users in both the corporate and commercial environments, Software Developers Forum features a wide range of products, methodologies and services required for developing software systems. The event's innovative format combines a comprehensive programme of technical product demonstrations, live debates, a focused exhibition and the fiercely competitive "Developers' Challenge" - a head-to-head battle between rival development teams and products to create a software programme for a charitable organisation.

Entry to all elements of the event is free although there is a charge for all teams wishing to compete in the "Developers' Challenge". Call 0181 541 4888 to register free of charge.

28 Heroix Corporation Ltd
Yomans Court, Ware Road,
Hertford SG13 7HL, England
Tel: +44 (0) 1992 500006 Fax: 01992 500065

Company Description
Can you reduce the cost of managing your systems and provide users with better service and increased productivity levels? RoboMon can. This powerful software solution detects and automatically formulates the correct solutions to system problems. Heroix Corporation is a well established company with a proven history in system management services and solutions for VMS, UNIX-DEC, HP, IBM, SUN & Windows NT.

Geographical Coverage
Worldwide

Users
Include 16 of the Times Top 30 Companies.

SOFTWARE MARKET REPLY SERVICE

Should you require further information on any of these advertisers, simply fill in the coupon and return it to: Box FITT-1 Financial Times, One Southwark Bridge, London SE1 9HL.

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Company Name: _____

Position in Company: _____

Address: _____

Telephone Number: _____

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2 CIC Ltd	<input type="checkbox"/>	18 InFocus (UK) Limited	<input type="checkbox"/>
3 Professional Software Solutions Ltd	<input type="checkbox"/>	19 CSI	<input type="checkbox"/>
4 Logic Works Limited	<input type="checkbox"/>	20 Harrier Softnet Limited	<input type="checkbox"/>
5 Pacific Systems International Plc	<input type="checkbox"/>	21 Xyratex IT Consultancy Group	<input type="checkbox"/>
6 Xyratex	<input type="checkbox"/>	22 Mannesmann Tally Ltd	<input type="checkbox"/>
7 Xyratex	<input type="checkbox"/>	23 FaxBack Limited	<input type="checkbox"/>
8 Memory Technology Ltd	<input type="checkbox"/>	24 Saratoga Systems	<input type="checkbox"/>
9 SSA	<input type="checkbox"/>	25 Softa & Co Ltd	<input type="checkbox"/>
10 Tactician	<input type="checkbox"/>	26 Geoplan	<input type="checkbox"/>
11 FMI Systems Limited	<input type="checkbox"/>	27 Software Developers Forum	<input type="checkbox"/>
12 WorkGroup Systems Limited	<input type="checkbox"/>	28 Heroix Corporation Ltd	<input type="checkbox"/>
13 Real Time Consultants Plc	<input type="checkbox"/>	29 SHL Systemhouse Limited	<input type="checkbox"/>
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15 Xyplex	<input type="checkbox"/>	31 JBA	<input type="checkbox"/>
16 Elan	<input type="checkbox"/>		

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- 29 Systems Integration & Outsourcing
- 30 Windows To Unix Integration
- 31 Worldwide Manufacturing Solutions

29 SHL Systemhouse Limited
137 Stamford Street
London SE1 9AU
Tel: 0171 9289800 Fax: 0171 9281296

Company Description
1. Client/Server Software Development
Data Warehousing
Object Orientation
Web Technologies
2. Desktop Services
3. Outsourcing Services
Mainframe Processing
Client/Server Operation
Networked Systems Management
(WAN/LAN)
4. Client/Server Education
Classroom
Multimedia

Hardware
All distributed/open systems platforms

Geographical Coverage
Offices across UK

30 SCO
Croxley Business Park
Watford, WD1 8YN
Tel: 01923 813644 Fax: 01923 813617

Company Description
Bringing Microsoft Windows desktops and UNIX servers together into one manageable and integrated solution is SCO's business.

First, SCO is the leading supplier of Business Critical Servers, delivering 1 in every 3 UNIX servers shipped in 1994 (Source: IDC 12/94).

Second, SCO is the leading supplier provider of software that integrates Windows PCs with all major UNIX system vendors including DEC, HP, IBM and SUN.

For additional corporate and product information see SCO's home page on the World Wide Web (<http://www.sco.com>), or alternatively, tick the SCO box on the coupon below.

31 JBA
Needles House, Birmingham Road
Studley, Warwickshire B80 7AS
Tel: 01527 496444 Fax: 01527 496230

Company Description
JBA System 21 Financials streamlines the processes of exception analysis, performance measurement, budgeting and forecasting. It also guides users through the maze of legal, accounting and taxation differences of the global marketplace. System 21 contains modules to cover every area of an organisation's financial operations, both now and into the 21st Century.

Hardware
Multi platform

Coverage
Worldwide

Applications
Accounting, Customer Service, Distribution and Production, with specific software for the Drinks, Apparel, Plant, Tool and Equipment hire industries.

We Make The Software That Runs Your Business.

For a business, it's the most important software in the world.

Because when the software that runs your business stops running, so do you. When a spreadsheet crashes, it's annoying. But when your order entry database goes down, that can be a full-fledged catastrophe.

That's why 93% of the Fortune Global 100 companies run their businesses with CA software.

Our clients know they can count on our mission-critical, client/server software to process millions of transactions and support hundreds of thousands of users.

And our award-winning service and support keep the entire enterprise up and running around the clock — and around the world.

**For An Annual Report Or For More Information
On Our Products, Call Or Fax
Your Local CA Office Or Visit
<http://www.cai.com>**

**COMPUTER
ASSOCIATES**
Software superior by design.

France	Tel. 33-1-40 97 50 50	Fax 33-1-40 97 51 51
Germany	Tel. 49-6151-949-331	Fax 49-6151-949-877
Italy	Tel. 39/2-90464.1	Fax 39/2-904642501
UK	Tel. 44 1753 679679	Fax 44 1753 825464

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2 India's software industry

■ Profile: Dewang Mehta of the National Association of Software and Services

By Paul Taylor

■ Prospects in a global market

FINANCIAL TIMES REPORT

Mehta: a man with a mission

Dewang Mehta has one mission and one overriding passion in life. His mission, now largely complete, has been to turn India into a real force in the world software market. His passion, however, is film-making.

A qualified accountant, journalist and expert in computer graphics, Dewang Mehta, has achieved success and recognition in his two chosen fields - software and films, including winning a number of prestigious awards for his film-making.

As executive director of the New Delhi-based National Association of Software and Services (Nasscom), he has overseen the phenomenal growth of an industry which today is worth about \$1bn a year.

Nasscom's membership, which includes most of the main multinational software developers as well as a wide range of local companies, has grown - from 72 in 1991, when he was asked to take over as executive director - to more than 320 today.

His skills as a highly effective lobbyist for the industry is reflected in his achievements which include negotiating income tax exemption for software exporters, and excise and sales tax exemption from a number of state governments. In addition, he persuaded the Finance Ministry to reduce the import duty on software from over 100 per cent to just 10 per cent - he still has his sights set on duty-free software imports. He was born in August 1963 and spent his early childhood in Umreth, a small village in Gujarat, the son of a pharmacist who worked for Schering, the German pharmaceuticals group.

"From the beginning I was fascinated by medicine," says Mr Mehta. "I met a lot of doctors and my only ambition was to become a doctor."

He almost did become a doctor. Mehta was a good student and in 1979 he passed the entrance exams for three medical colleges and chose the one with the best reputation - but had to leave the course after just two months when his school physics exam marks came out just below the quali-

ty level. "They told me I would have to leave and apply again the next year, but my ego at that age did not allow me to do that," he says. "I was a bit disappointed."

Instead, he decided to become a civil servant and switched his studies to History, Political Science and French at St. Xavier's University in Bombay. "My father was upset," recalls Mr Mehta. "He felt that a job as a civil servant was no good and that graduating with a Humanities degree was something only girls did."

As an only child, in Indian society the young Mehta was obliged to take account of his father's wishes. So he moved back to Delhi and qualified as a chartered accountant - gaining the second highest marks in India.

Wide interests

But despite studying chartered accountancy he made it clear to his family that he was only doing it to please them - "I found the whole accountancy thing very boring," he admits. So, while at college he continued pursuing his two other great interests: journalism and film-making.

When he was just 16 one of his articles had been published as the 'middle' feature in the Times of India. "That gave me a break to work for a magazine called *Surya*, as a part time assistant editor," he says. His interest in film-making had also been triggered some years earlier when, during a return visit to his village, he had been introduced to Shyam, the Indian film director, who was making the film *Manthan*, locally.

In 1982, while he was still studying accountancy, he made his first film, a 20-minute documentary on Indian tourism, called *Glimpses of India*. "I shot and directed the film, because I didn't have much money to hire other people. Except for the music, I did everything and I still believe

that the only thing good in this movie was the music," he says, modestly.

The film, in fact, won an award at the Commonwealth Film Festival in Leeds in 1983. And while Mr Mehta was in England to collect the award he met "a couple of computer graphics buffs" who persuaded him the future of documentary film making and advertising would be in computer graphics, rather than conventional methods.

"I found that very interesting," he says. "I went to a couple of computer graphics studios on Wardour Street and got fascinated, although in those days one had to use Hewlett Packard mainframes and it used to take 20 minutes to render one frame."

He began a course in computer graphics but says: "Again my father was not in favour of it because he knew it would take me more towards advertisement film-making, so to make him feel happy I also did a course in cost and management accountancy."

He stayed in London for three-and-a-half years working as a cook with the Wimpy's fast food chain earning £150 a week in the mornings and studying computer graphics at Imperial College and cost accountancy in the afternoons. By 1985, he had completed his studies and set up a small company doing work for Saatchi & Saatchi including commercials for both British Airways and the BBC.

Mr Mehta says he would have liked to stay in London, but his father had died in 1982 and his mother was ill and concerned that he might marry someone in London. So the young film-maker returned to Delhi in 1987 to look after her.

Back in India, he joined Orissa Cement which, at that time, wanted to diversify into computer graphics. However, the diversification plans were 'put on hold' when the economy slumped so, using his accountancy training, he became general manager of



Dewang Mehta: a highly effective lobbyist for the fast-growing Indian software industry

Orissa Cement at the age of 26.

"This was not to the liking of plenty of people who were twice my age there," says Mr Mehta, "but I think it was a wonderful two and a half years during which I computerised Orissa Cement and literally used all the skills I had gained as a chartered accountant."

"It was enjoyable, but it was keeping me away from my passion of graphics and film-making, so Orissa allowed me to make films on the side, so I made a film called *Wired* which was about cyberspace and networking through computer graphics."

The film won him another award, this time as computer graphics man of the year because of his work in ray tracing.

Encouraged by the success of *Wired*, he decided to re-establish his London-based computer graphics company. Meanwhile, Nasscom had been set up in Delhi and was, in Mr Mehta's words, "going through its early birth pangs of lack of credibility and funds."

The early Indian software industry pioneers turned to Mr Mehta to run Nasscom - "I said only on condition that I am able to continue my film-making and that there are no restrictions on me."

Today, he has his own film making and computer software company called Fractal Graph-

ics which aside from producing advertisements, is developing a 32-bit computer cricket game for Nintendo. Meanwhile, he continues to write for magazines and papers, acts as consulting editor to *PC Magazine India* and plans to launch an Indian edition of *Wired* magazine, next month.

As far as Nasscom is concerned, he says his contribution has been to bring a variety of different skills to the job. For example, he says his chartered accountancy background has helped with understanding all the legal issues involved in winning tax exemptions for the industry while his background in journalism has helped him put the industry's perspective across in newspapers.

Two years ago he launched a campaign to reduce the rampant software piracy in India. As part of this, he established the first anti-piracy hot line - something which has made him a target for threatening calls. He has also set up an annual conference and exhibition which has become the biggest software event in the Asia-Pacific area with more than 1,000 delegates attending the conference and 300,000 exhibition visitors.

As to the future, he says: "I always believe every person has their own capabilities and peaks. I am just reaching that peak, maybe in one or two more years." Then, he says, it will be time for someone else to take over at Nasscom.

Campaigner

But he still has a few goals left: most recently he has led Nasscom's campaign against the tighter visa restrictions imposed on Indian software engineers by the US authorities. Demonstrating his acute political skills he has convinced companies doing business with India to lobby on his behalf because, he says, "the Clinton administration will listen more to them."

When he does finally step down from the Nasscom hot seat, he wants to become a Gujarat Member of Parliament. He has not finally decided which party platform he will adopt, but says may fight on the BJP ticket.

Although he does not agree with the BJP's religious stance, he says his political views are very right wing - "I believe in the extreme right wing. I do not believe in the middle path. I am totally anti-communist. I believe in a really free economy - I don't believe in protectionism... we are the only association in the country which has been asking for zero duty, everyone else wants protection. My feeling is that if my industry's products cannot compete globally, then there is no point - we should shut down."

But politics aside, his most burning ambition is to make a good commercial *Massala* film "within the next five years."

Revenues of \$5bn by end of decade

Continued from previous page

Recent additions include Oracle, the database specialist, Novell and Siemens all of which have established large and rapidly-growing software engineering subsidiaries in Bangalore.

In the past, the rapid growth of the Indian software industry - and particularly exports in the form of both on-site and offshore services - has owed much to the country's cut-price labour, but most analysts agree that low costs are unlikely to provide a sustainable competitive advantage.

"Low costs help only in gaining entry into the US and European markets," says SSKI's Mr Mishra, "long-term competitive advantages will come from ensuring productivity and quality."

Inflation is already beginning to cut into India's cost advantage - both in terms of labour and other costs such as rentals. In Bangalore, India's 'Silicon Plateau', software engineers' wages are rising by 20 or 25 per cent a year, and in other software centres, such as Bombay, office rentals have already soared to New York or Tokyo levels.

Infrastructure problems, particularly congested streets, frequent power cuts and water shortages in software centres such as Bangalore, threaten to stall or curtail the industry's growth. Similarly, the existing 64kbit/s satellite data-links are barely sufficient to support the industry's requirements.

Unless these issues are addressed, the Indian software industry risks losing its lead to rival low-cost centres such as China and Hungary.

While most projects undertaken for overseas clients go to plan and are completed on time, there are inevitably some disasters - "the picture is not entirely rosy," says Mr Tim Catling, a management consultant with PA Consulting in London.

Minimising risks

He says there can be real problems involving market volatility, legal difficulties, supplier sophistication, skills mismatch and other issues, and achieving benefit is not always straightforward.

"The potential rewards are higher, but so are the risks which cannot be underestimated," Mr Catling says. In order to minimise these risks, PA Consulting offers a wide range of services and advice for its clients.

Similarly, specialist IT consultancies such as London-based SSH Offshore works with an approved list of Indian partners to provide a wide range of offshore services while minimising management

IT partnerships in India

World company	Partner in India
IBM	Tata (TSL)
DEC	DEQPL
Compaq	FL, GMS, Unicom
Dell	PCL
Apple	Wipro
Unisys	Tata (TUL)
HP	HCL (HCL HP), HP (India)
Olivetti	Modi (MOD)
Fujitsu	RPS (Fujitsu RPS)
Citizens	TVSE
Sun	Wipro
Tandem	Wipro
Convex	Wipro
Epson	Wipro
Acer	Wipro
Sybase	NIT
Oracle	TCS

Source: Dataquest Magazine, D-74 Panchsheel Building, 110017, New Delhi. Tel: 616 3888. Fax: 647 8785; not affiliated with Dataquest Inc. the US research group.

and other risks. SSH estimates that of the hundreds of Indian software companies, only about 35 are really capable of undertaking sophisticated offshore work, and only about 10 can demonstrate "significant" offshore development experience in a western environment.

One of the biggest problems facing inexperienced companies outsourcing to India, says Mr John Elton-Payne of SSH, "is that Indians like to say 'Yes' - even when they mean 'No'."

However, the Indian software industry itself is also attempting to address some of these issues. In particular, Nasscom and the leading companies have focused on improving quality levels.

About 16 Indian software companies have already achieved ISO9000 certification and another 50 are in the process of acquiring it. Highlighting the high quality standards that are achievable in India, Motorola's Bangalore software facility has obtained the US Software Engineering Institute's level 5 certification. The leading Indian software companies are also investing

heavily in training, and in leading-edge programming skills such as computer aided software engineering, fourth generation languages, object orientated programming and graphical user interfaces.

More specifically, as the Indian software industry begins to mature, companies have begun to move up the software value chain, and in particular to provide more offshore services and take the first tentative steps towards producing packaged products.

While many of the 700 Indian software companies still rely upon providing basic 'body shopping' services for clients such as on-site programming, an increasing proportion of the industry's revenues are being derived from fixed-price turnkey projects which are undertaken in India.

Some of these projects involve hundreds of hours of programming code, underscoring the industry's technical and managerial strengths.

Among the large turnkey projects undertaken by Indian software companies, Tata Consultancy Services, developed a complete trading and settlement system for Switzerland, NIT, part of the HCL group, developed a computer-based training product for the World Bank and Infosys built a distribution package for Reebok. Already, a few of the more dynamic companies have moved on to the next stage - developing standardised software packages for the growing domestic and international markets - although this tends to be a riskier business and requires extensive marketing skills.

India is already a force to be reckoned with in the world software market, although there is still plenty of room for growth. If the emerging tier can continue to climb the value-added ladder while addressing customers' outstanding concerns, Indian software developers will play an increasingly important role in one of the most dynamic global markets.

A recent Nasscom study suggested that the industry's revenues will reach \$5bn by the end of the century. Other independent observers have even suggested that India could emerge as the software development centre of the world in the 21st Century.

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Investment in IT

New appetite for information technology

India has a well-deserved reputation for world class scientific research and development in a number of fields, including information technology

India's long-established scientific record reflects a number of factors including strategic concerns, the country's strong education base with its bias towards maths and science, and the widespread use of the English language. As a result, India claims the second largest English-speaking scientific and technical manpower resources in the world.

However, the development of India's own technology infrastructure has been constrained in the past by state control of much of the domestic economy, bureaucracy and economic protectionism.

High-profile state-funded projects such as the Indian space programme and the C-DOT small telecoms switch, designed for rural exchanges, have only had mixed success. Similarly, India has been without an indigenous semiconductor fabrication capacity since the Semiconductor Company plant, at Chandigarh, burned down in 1988.

As a result, India's installed base of high technology products remains small by western standards. India, the world's largest democracy with a population of 900m, has one of the lowest concentrations of computers in the world - there are only about 1.2m personal computers in the country, and one of the world's poorest telephone networks, with only eight lines per 1,000 people. By comparison, China has 17 telephone lines per 1,000 people and Malaysia has 120.

Liberalisation

Similarly, India's spending on computer hardware and software as a proportion of gross domestic product, has lagged well behind international averages. Now, however, this is beginning to change.

Over the past three years, the liberalisation of the Indian economy has resulted in a wave of new foreign and domestic direct investment and a surge of interest and spending on computers and telecommunications equipment and services.

The new appetite for IT, particularly among India's increasingly affluent middle class, is evident in the growing sales of mostly imported multi-

media home computers, CD-Rom discs and packaged software as well as telecommunications products such as pagers and digital cellular telephones.

Meanwhile, there is a growing recognition in both the industrial and service sectors of the economy that investment in information and communications technologies is necessary if India is to compete in open, global markets.

The Indian IT industry's turnover grew by almost 60 per cent to around Rs68.4bn (\$2.2bn) over the past year, according to figures compiled by Computers and Communications, an industry magazine. Roughly 70 per cent of Indian IT spending is in the corporate sector.

The advance was led by domestic hardware sales which grew by 87 per cent to Rs23bn and domestic software sales which posted a 54 per cent increase to Rs10.7bn - outpacing software exports which grew by 51 per cent to Rs15.4bn for the first time.

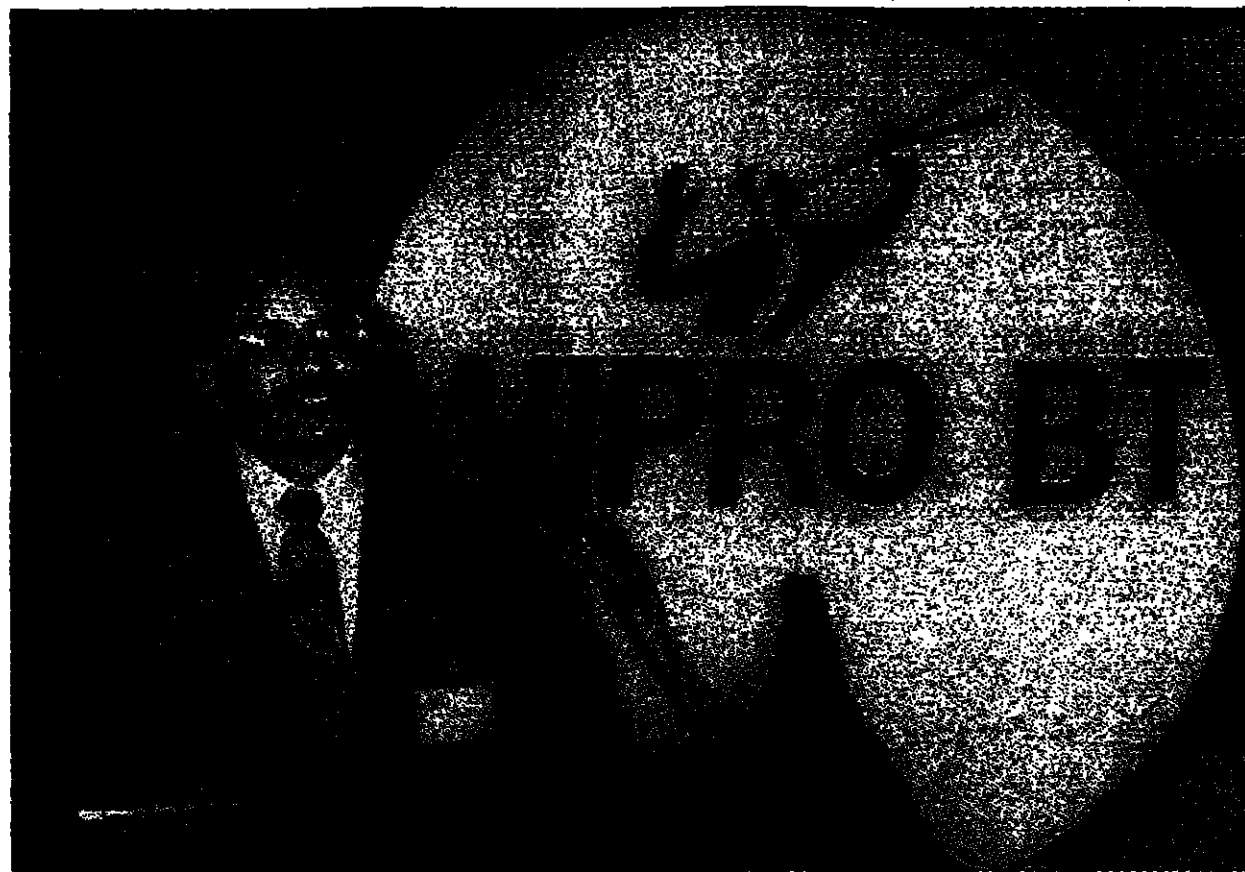
Growth in domestic IT spending has been fuelled in part by a steady reduction in import tariffs on computers, peripherals, software and components as part of the liberalisation programme.

Import duties on computers have been cut from 65 per cent to 40 per cent while tariffs on software packages have been reduced from 85 per cent to 10 per cent. Further reductions are planned.

Aside from helping to generate the recent recent surge in both software and hardware sales, these tariff reductions are helping to eliminate illegal 'grey market' imports and reduce software piracy.

This year, about 450,000 personal computers will be sold in India, up from 240,000 in 1994-95. However, within the next few years annual sales are expected to break through the million mark - "there is huge growth and tremendous opportunities in this market," says Mr Rajiv Nair, Microsoft's country manager.

Microsoft, which has established a distribution network involving three distributors and 700 outlets in the sub-continent, is among the US multinationals who have seized upon these new opportunities.



Satellite services: Anand Talsani, chief executive of Wipro IT, at the announcement of the joint venture between British Telecom and Wipro, a market leader in the provision of IT services - see report, this page. Previously, Mr Talsani, 41, headed the communications division of Wipro Infotech

Most analysts believe the opening up of the domestic Indian markets and the sharp reduction in import tariffs over the past 18 months, will lead to market consolidation and the dominance of imported brands.

This trend is already apparent to some extent in the strong sales of computers from the world's leading vendors including Compaq Computer, IBM, Hewlett Packard, Digital Equipment, Apple and Silicon Graphics. Almost all the large multinational computer system vendors now have local sales and distribution operations, and in some cases, joint-venture manufacturing operations in India.

Similarly, in the telecommunications field, American Telephone and Telegraph, Motorola, Siemens, Philips and Alcatel have all established a strong domestic presence manufacturing switches, optical fibre cables, pagers and other equipment. Many of these multinational IT companies have also established offshore software engineering and chip design operations in India, particularly in Bangalore, Bombay and New Delhi.

But despite the influx of for-

eign multinationals, a handful of large domestic IT conglomerates with a wide range of business interests is also beginning to emerge.

These include HCL-HP, Percept Computers and Wipro Infotech. HCL-HP, whose operations range from software services and training to hardware design and manufacturing, saw its turnover climb 71 per cent to Rs6bn in the year to June 30.

HCL-HP, which has a technical collaboration agreement with Hewlett Packard of the US, has become the undisputed industry leader and is set to become the first domestic IT group to cross the Rs 10bn level in the next few years.

Revenues

Reflecting consolidation within the sector, the five largest hardware vendors, HCL HP, Wipro, PCL, TISL - the fast-growing joint venture between International Business Machines and Tata Consultancy Services - and Fujitsu ICM, already account for almost 60 per cent of domestic hardware revenues. Collectively, the top five

posted a 63 per cent increase in turnover last year, according to India's *Dataquest* magazine which also notes that, "most of the 20 largest vendors of hardware and software made their big bucks bagging large orders from the government and corporate sectors."

Sales to the manufacturing sector, however, continued to account for a fifth of total revenues as India's leading entrepreneurs begin to use technology to transform the nation's ageing industrial infrastructure.

Many manufacturing industry leaders see technologies such as client-server computing helping them to compete in the newly deregulated domestic market.

In some instances, they are leap-frogging older technology to install highly sophisticated client-server and enterprise-wide computer networks using high performance hardware and satellite or microwave data communications.

Similarly, India's service sector, including the financial services industry, has begun to recognise the need to use IT to help modernise its antiquated and labour-intensive infra-

structure. The public sector banking system, now facing new competition from private sector banks, is beginning to introduce some automation, and a degree of competition has been introduced into public procurement.

Overall, the Indian services sector comprising banking, telecommunications, energy and other services, accounted for about 36 per cent of the revenues of the top 20 Indian IT groups.

Most leading domestic IT vendors have undergone significant restructuring operations in recent years, preparing themselves for a series of chal-

Businesses turn to satellite solutions

British Telecom, a leading supplier of global satellite communications solutions, has announced a joint venture with Wipro of India, a market leader in the provision of IT services, writes Michael Williams.

As the Indian economy continues to expand, the new Company, Wipro BT, will help fuel economic growth by pro-

viding businesses with VSAT (very small aperture terminals) and value-added network services to provide much-needed connectivity across the sub-continent. India, the tenth largest industrialised nation in the world, has more than 100,000 medium-to-large businesses, Ian McKenzie, general manager of BT Global Satellite Services, says: "Due to poor

terrestrial infrastructure and the increasing requirement by companies for high-speed connectivity, the current opportunities for satellite solutions - such as VSAT services - are superb."

VSATs will be able to provide customers with fast and efficient communications between cities and more remote areas.

that there are still too many government restrictions over the use of satellite links and data networks - for example, point-of-sale terminals and automatic teller machines can be linked together locally, but not on a national basis.

The outlook for the Indian IT industry is good. But if India is to fully capitalise on the potential of information and communications technology and is to build the IT infrastructure essential for its future prosperity, these issues and a number of other politically sensitive problems, such as attitudes towards foreign ownership, will have to be addressed.

Meanwhile, some in the industry and government are pressing for further and more radical reforms in the IT sector, particularly in telecoms regulation - "the general level of understanding is still 10 to 15 years behind the times," comments Dr. Prunab Sen of the government's planning commission. Dr. Sen argues

that there are still too many government restrictions over the use of satellite links and data networks - for example, point-of-sale terminals and automatic teller machines can be linked together locally, but not on a national basis.

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4 India's software industry

■ Domestic software market

'Phenomenal' surge in sales

Further cut in import duty helps boost demand, especially in the financial sector

For many years the Indian domestic software market lagged behind the dynamic export sector - despite notching up a compounded annual growth rate of 31 per cent between 1988 and 1994.

But for the first time, the growth rate in the domestic market last year exceeded export growth. According to industry figures, domestic software sales - excluding software developed in-house - increased by 34 per cent to Rs 10.7bn in 1994/95 outpacing exports which grew by 30 per cent.

"There has been phenomenal growth in software," says Kunal Kashyap, a consultant with Arthur Andersen in Bangalore. The growth of the domestic market is an important sign of the IT sector's growing maturity, and is likely to be a positive factor for the industry's long-term performance.

There are a number of reasons behind the recent surge in domestic software sales, but undoubtedly the most impor-

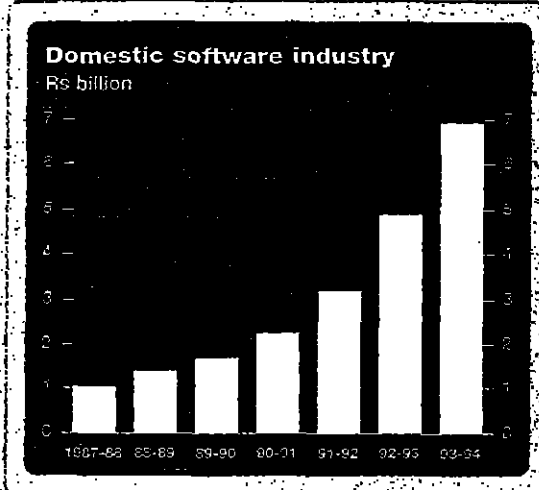
tant has been the reduction in import duties on software.

In his March 1994 budget, Dr Manmohan Singh, finance minister, reduced import duty from 86 per cent to 65 per cent on systems software and from 86 per cent to 20 per cent on applications. In the latest budget, software import duty was cut further to a uniform 10 per cent.

"Prices are now very competitive," says Rajiv Nair, Microsoft's country manager. Coupled with increasing computer penetration - albeit from a low base - and tough new anti-piracy laws which were enacted in June last year, the impact was dramatic.

More than 100 new foreign software products were launched into the Indian market last year and imported software sales jumped by almost 160 per cent to a new high of Rs 2.75bn. The Indian software resellers were among the main beneficiaries of this bonanza.

Bangalore-based Wipro led the resellers' league with sales last year of Rs 457m and has emerged as perhaps the broadest-based reseller representing companies ranging from Borland to CorelDraw. Other top resellers included Onward Novell which sold Rs240m of software, consolidating its position by selling Novell's networking products and



Source: Dataquest Magazine, India

NITT, the leading company in the fast expanding IT training sector.

Microsoft's growing influence over the Indian domestic market was highlighted by the fourth and sixth rankings among the resellers of Sonata and Tata Unisys, two of the US software group's Indian distributors. However, domestic packaged software vendors also performed well with more than 90 new products launched and sales expanding by 83 per cent to Rs 1.38bn compared with a modest 12 per cent gain the previous year. Most of these products are targeted at niche areas rather than broad horizontal markets.

"Indian software companies are unlikely to become effective competitors against Microsoft in off-the-shelf software which is largely a marketing game, but they can be effective in large niche markets," says N R Narayana Murthy, chairman of Infosys.

Reflecting the increasing demands of India's corporate sector for state-of-the-art software, the main areas of growth were in the financial accounting market - "India is the largest Unix market in Asia," says Dr Yogendra Singh who is in charge of software develop-

ment for Tata Information Services. Among the companies with strong products in this area are Tata Consulting Services, the industry's largest software vendor, which recently launched a Windows-based version of its E-X accounting package. Bangalore-based Peutronics, Citicorp Infotech and Infosys Technologies.

More generally, relational database management systems software sales grew by 90 per cent and overall sales of financial accounting packages rose by 170 per cent. Most of the leading RDBMS developers including Oracle, Ingres, Sybase and Informix have already established their own operations in India, or developed strong links with local partners.

Indian industry's increasing confidence in domestic developers was also evident in the growth of turnkey software products with revenues rising by 70 per cent from Rs 1.55bn to Rs 2.64bn last year. The leading turnkey software groups include CMC, ECIL and TCS which, together with TISL, the IBM-TCS joint venture, and Oracle, won the contract to computerise the

Income Tax department.

This area is expected to remain buoyant as India's stock exchanges, banks and utilities turn increasingly to IT systems to improve efficiency and competitiveness. However, Som Mittal, managing director of Digital Equipment India, says: "The trend is towards standardised software rather than everyone trying to do their own software."

This is also reflected in the strong appetite for local customisation of standard software packages.

Despite being overshadowed by software exporters in the past, domestic software developers have begun to make an important contribution to the domestic economy. The National Association of Software and Service Companies (Nasscom) estimates that there are about 380 domestic software companies employing more than 32,000 technical people. Five years ago, there were just 10 domestic companies.

The potential for growth remains enormous - foreign and domestic software vendors have barely begun to scratch the surface of a market in which is estimated that there are 200m people with high spending power.

"Over the next five years the domestic industry will grow strongly," says Mr V Chandasekaran, president of Wipro Systems. "Buoyed by demand both for packaged software and services. Wipro itself has developed a strong position in networking and communications software."

Eventually, a strong domestic software market is probably also essential if India is to build upon its early software export success, and particularly if it is to make any impact with packaged products of its own in the global market.

As Edward Yourdon, the US software guru noted after visiting India in 1989: "To build a viable export industry, India must have a strong domestic computer industry as a foundation. Computers must be part of every business, part of culture, part of social infrastructure."

The Indian domestic software industry seems determined to play its part.

■ International sales

Indian exporters win confidence abroad

In less than a decade, Indian software exports have grown more than 30-fold to Rs 15.4bn in 1994-95, making them one of the country's fastest-growing and most important export sectors

A recent World Bank funded study concluded that, subject to a few corrective steps, including more emphasis on software products, India's software exports should top \$1bn within the next few years.

The study compared India with a sample of seven competing countries including Ireland, Israel, Singapore, Philippines, China, Hungary and Mexico. When companies were asked to rate their preference for providing software and services, India came top of the list.

Among the reasons cited were the cost and quality advantage of the Indian software industry, India's strong technical skills, particularly in leading edge technologies, and infrastructure considerations such as improved data communications facilities and the establishment of Software Technology Parks.

India's other attractions as a software development centre for multinationals include income tax exemptions and other government-sponsored incentives for software exporters, the full convertibility of the Rupee and the growth of the domestic market fuelled by economic liberalisation.

According to the National Association of Software and Service Companies, excluding one-man operations, about 330 companies are involved in software exports in India. Together, they employ about 14,000 technical people but vary dramatically in size and in structure.

Some, such as Tata Consultancy Services, the established leader in the Indian software industry, are indigenous companies, while others - such as Tata Unisys, Mahindra British Telecom and BaeHAL - are joint ventures between domestic players and western companies.

qualified engineers and has 44 offices worldwide lifted its export earnings by 42 per cent to Rs 2.83bn.

Last year, TCS undertook several large projects including building a multi-million dollar securities clearing system for the Swiss Corporation for Securities Settlement (Sega) involving about 260 man-years of work, and a project for the UK's Sun Life Assurance which ranks as India's the largest off-shore project.

Other large exporters include Bangalore-based Wipro (the combined Wipro Systems and Wipro Infotech businesses) which grew its exports by over 80 per cent last year. Tata Unisys, Pentafour Software & Exports and Silverline Industries.

Wipro has alliances with General Electric, Seagate, and Sun Microsystems amongst others and its Bangalore headquarters include secure development facilities for large over-

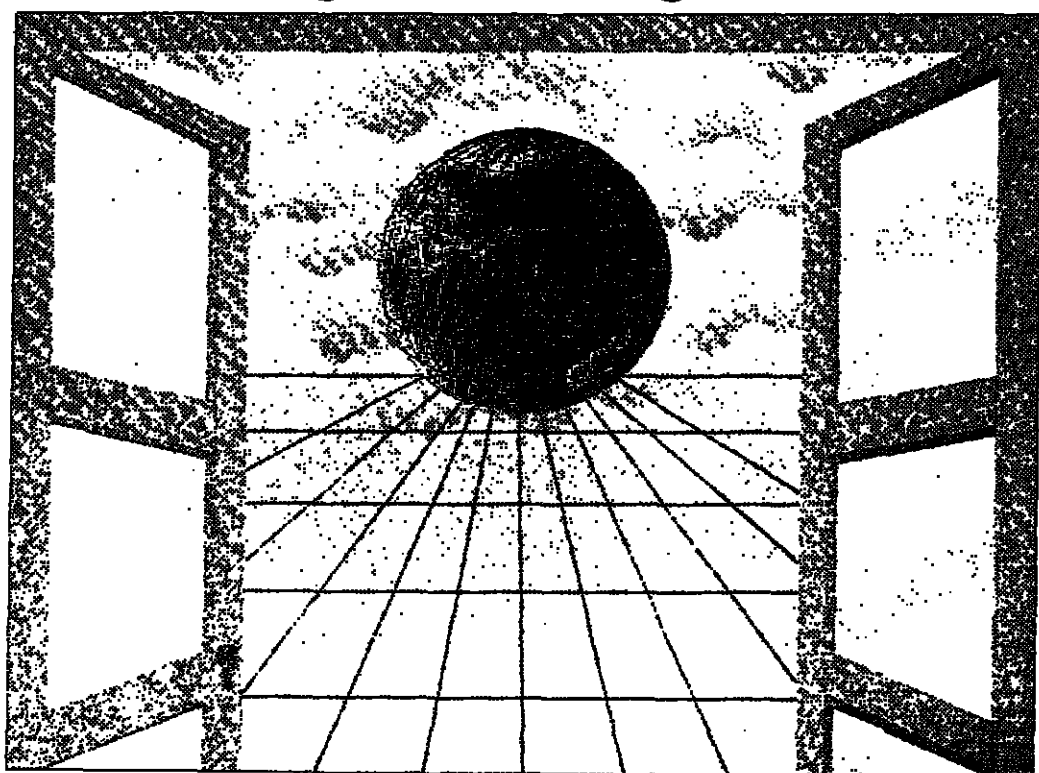
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India's top 25 software exporters
Values in Rs million

Rank	Company	Value
1	Tata Consultancy Services, TCS	28,368
2	Wipro	8,561
3	Tata Unisys	8,250
4	Pentafour Software & Exports	5,483
5	Silverline Industries	5,142
6	Infosys Technologies	5,096
7	Fujitsu ICIM	4,514
8	DEIL	4,339
9	Square D Software	4,057
10	PCS (Comp. Division)	3,820
11	COSL	2,868
12	TISL	2,800
13	HCL HP	2,475
14	Siemens Information Systems	2,358
15	Mahindra British Telecom	2,340
16	NITT	2,315
17	IIS Infotech	1,980
18	CTIL	2,042
19	LAT	2,000
20	Texas Instruments	1,972
21	Hughes Software Systems	1,880
22	Hexaware Infosystems	1,816
23	Mastek	1,783
24	CMC	1,421
25	PSI Data Systems	1,101

HCL Consulting Ltd., the holding company of HCL Group's overseas software operations, has reported a turnover of Rs 1,750m for the year. Data source: CSC Premier 200.

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Strong shift to off-shore projects

Continued from previous page:

sees customers such as Xerox. Other fast-growing and innovative exporters include Infosys and Square D Software.

Since 1987-88, the Indian software export industry has grown at a compound annual growth rate of more than 46 per cent in local currency terms. Even in dollar terms, the CAGR has been more than 30 per cent, compared with a worldwide growth rate for the software industry of between 15 and 18 per cent.

Last year, software exports grew by 50 per cent and would probably have grown even faster had it not been for moves in the US to curb visa entry - a move that has been vigorously opposed by Nasscom and many US companies which have used Indian software services to help maintain their competitive positions.

The industry's growth figures do, however, mask some important changes in the structure of the export indus-

Software exports: categories

Category	1994-95 (Rs)	Percentage of total	1993-94 (Rs)	Percentage of total
On-site services	8.0bn	82.74	4.8bn	48.94
On-site turnkey	1.2bn	8.14	1.8bn	18.08
Off-shore turnkey	4.4bn	28.74	3.0bn	30.06
Off-shore pack. dev.	1.5bn	10.24	87m	6.61
Other services	200m	0.13	31m	0.30
Totals	15.3bn	-	10.3bn	-

Source: Dataquest Magazine, D-74 Panchsheel Enclave, 110017, New Delhi

try. Historically, the bulk of India's software exports have either taken the form of exporting professional services - 'body shopping' in its crudest form - to work on a client's site, or providing low-cost data processing and data entry off-shore.

At the end of the 1980s, on-site development work accounted for as much as 95 per cent of Indian software exports - effectively, the India provided a pool of temporary labour for Silicon Valley when,

and if, required. However, there has been a marked shift in recent years towards 'offshore' project development. By last year, the percentage of on-site work had dropped to about 61 per cent.

This trend reflects several factors including a growing 'comfort level' among western companies in particular with outsourcing IT work to Indian software firms, and improved data links with India - by March of this year there were 124 high-speed leased data

lines providing 64Kbps links with overseas customers.

The shift towards offshore operations has a number of important repercussions for the industry. In particular, it has enabled Indian software exporters to gain experience and to begin to climb the value-added chain.

As Tapasjale Mishra, an industry analyst with Bombay-based SSRI Securities, noted in a recent report, typically software exports for a developing country like India move through four distinct phases:

■ Exporting cheap labour overseas. This enables companies to build credibility with potential clients, and while margins in exporting cheap programmers may be low by international standards, low manpower costs mean that Indian exporters can still achieve returns on capital employed of over 25 per cent.

■ Using cheap labour to provide 'bodyshop' services in the home country. This eliminates costly travel and helps build the local infrastructure. Satellite communications remove distance as an obstacle to doing business.

■ Building software products for export overseas. This is generally acknowledged to be where the real money is - however, successful products require good market understanding and hefty marketing expenses which often negate any salary advantages.

■ Building software products that take advantage of native expertise in an application area. This is the real value-added goal, but requires a sophisticated local industry, supported by advanced tools and technology.

Today, most Indian software exporters are probably at level two, but beginning to explore level three. Some of the more aggressive companies have begun to produce niche products for the global market.

The shift to off-shore development has also enabled Indian companies to remain competitive when bidding for overseas work against other

countries such as the Philippines, China and Hungary. It has led to a new surge of inward investment by multinational IT groups which have decided to set up their own 'captive' Indian operations to service their global software requirements.

US customers

Significantly, the bulk of these new entrants are US-based companies like Oracle, Novell and Motorola. With a few notable exceptions, such as Siemens, European companies have been slower than their US counterparts to spot the opportunities in India - and they may now be too late. A number of initiatives have been taken to try and correct this imbalance. These include the establishment of a Bangalore-based company called 3SE by the European Commission and the Indian Government to promote cooperation between the EU and India in computer software.

Among its aims, 3SE hopes to help European product developers, software service providers and end users form strategic partnerships with Indian companies or establish fully owned or joint venture companies. For the moment, however, many European companies appear to be holding back.

Along with many other leading Indian software developers, Madras-based Square D Software has established overseas offices, including one in Europe. However, Square D notes that the growth evinced by the industry in India, "cannot be sustained forever."

"The cost advantages will continue, but are bound to reduce over time, stabilising towards the end of the decade," says the company. "The window of opportunity is therefore relatively short for windfall gains within this sector."

Put another way, "the train about to leave Platform One is getting crowded, much the same as any other train in India."

Keeping up with technical advances

The challenge for Indian companies is to become producers of world-class software products

Advances in the software industry enable computer codes to be re-used. Other developments, such as voice recognition and object orientation, sharpen the big question: has the potential for the Indian software industry peaked?

In Bombay, Ashok Jain, managing director of Fujitsu-ICL - 38 per cent owned by ICL - observes: "India has focused on code-cutting and software development. This will not remain competitive because of the high salary inflation which is taking place. Compared to salary increases of as little as three to four per cent in some other parts of the world, India is seeing 15 to 20 per cent annual increases in salary."

But Mr V Mani of Mahindra BT points out that Indian companies make it a priority to invest in keeping up with technical advances and are structured to do so. For example, Mahindra BT recruits graduates in computer science or engineering, trains them in-house for three months, then puts them to work on projects under the supervision of senior people for six months before they are allowed to work on projects unsupervised.

Sixty per cent of the recruits are chosen to work on mainframes, 40 per cent on open systems. Two or three years later, they are given the opportunity of being cross-trained on other platforms, UNIX, object orientation, and so on. Though there is increasing use being made of distance-learning courses, the company has a policy of 15 days' training per

person each year. Some of this is provided by their own internal training department, some by external training agencies, and some by partner-companies in the west, such as TI.

Rod Perry of SI thinks that Indian software engineers are "quite capable of keeping up with industry developments". Though recent developments make it possible to re-use code, Perry feels that this will affect "only the balance of the kind of work done in-house versus that done offshore, rather than the fact of a growing volume of work being done offshore."

"Most of the systems in western countries are relatively simple, with scope for great flexibility, and this is some-

thing with which Indian engineers are well-placed to exploit". There is also a large amount of work to be done in relation to client/server systems, including code needing to be written in the C++ language to support large developments for large users migrating to object orientation.

Recent and future technological developments may well change the way we relate to Indian software suppliers, but future technological develop-

ments are unlikely to change the fact that we work with them, he says.

But now that Indian prices are increasing steeply, will Perry be tempted to look around for suppliers from even cheaper countries?

"I think one key factor which will militate against my looking for software engineers from cheaper countries is that Indian parents seem to have encouraged their children to go into this field. It is perceived as a high-status area in which to be involved. So the cream of the output from schools competes to get into this area."

"This is not always so in other places. The quality of staff in India is therefore an enormous competitive advantage. Now if that changes as well as the price, then it is possible that I may look closer to home."

Perry feels that there is another important factor: "Before we took on our Indian sub-contractor, we asked for references from different parts of the world. Every one of them said that they had a particular way of working with sub-contractors - but their ways were all different from each other."

"This was, to me, a wonderful testimony to our supplier's ability to adapt to which ever way the foreign customer wanted to work with them. And they have certainly adapted to our way of working with them."

He is confident that the Indian software industry grow

Continued on next page

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6 India's software industry



Offshore software projects: programmers in discussion at the Calcutta-based ADA software company, which among many overseas projects produced the payroll systems for Essex County Council in the UK, where ADA is represented by SSH Offshore. With another development centre at Trivandrum in the South Indian state of Kerala, ADA employs 150 software specialists on projects in seven countries.

■ Collaborative venture

Report by Prabhu Gupta

Surprise in the bidding process

Indian software engineers bring cost-savings for a UK investment capital group

Rod Perry, head of information systems at 3i, the UK investment capital group, confesses that he initially invited an Indian software company to bid for work principally to concentrate the minds of local UK providers regarding cost. "Even though we knew that the standing of the Indian company was excellent and that using the Indian company was a viable option."

What happened in the bidding process was a surprise, he says - "we found that the Indian company had a better understanding of our needs and of what we wanted to achieve".

The Indian company also had "greater organisational depth - with 4,500 staff - so that we were persuaded that

they would be able to provide the extra resources, if they were needed, to ensure that our work was completed on time".

The result, says Mr Perry, was that "even though the price of the Indian company was better, it was not the major factor which swayed the decision in their favour."

Did they have any initial concerns about the abilities of the Indian software company?

"Yes, but it was in the rather technical area of screen design," explains Mr Perry. In response, he brought together some of his specialists in Rapid Application Development (RAD), plus the Indian software engineers, and found that the Indian programmers were able to further develop the RAD team's ideas "and quickly made an altogether excellent product" - so that the area he was most worried about turned out to be no problem at all.

Even though 3i found that

it had to change specifications, the Indian programmers coped well and still brought the project in on time and within budget.

The sub-contract for maintenance of 3i's bespoke software is therefore now divided between a UK company and the Indian company, which will have a small team based in the UK, once the 40 man-year project has been fully implemented.

Mr Perry describes the project as "a very advanced windows-based client-server system, at the leading edge of technology".

He had at least some prior experience with the Indian software company, but before handing over the project, he followed up references in various parts of the world and also went to India to meet the principal staff, 18 months or so ago. Mr Perry was impressed by their breadth of knowledge about new software techniques.

So far, he is also pleased with the progress of the collaboration.

■ New developments

TCS launches a new generation of software

Tata Consultancy Services employs more than 4,000 software specialists

Evidence of the competitive progress of the Indian software industry comes from the announcement from Tata Consultancy Services (TCS), of a new product, 'RTwo'.

This product "represents a new generation of software in relation to executive information systems," says Mr L.C. Singh, TCS's executive vice president (marketing).

The difference between executive information systems (EIS) and RTwo, according to Mr Singh, is that RTwo is designed for information seekers who wish to navigate voluminous databases and extract and analyse information from them, while EIS packages are designed for control purposes, not information sharing.

RTwo is a client-based system which runs on Windows workgroups, extracting information from anywhere in the world across networks and databases. Forty man-years of labour and Rs40m have been invested in developing the product.

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So far, he is also pleased with the progress of the collaboration.

In a new world "where hierarchies are disintegrating and organisations are getting flatter", Mr Singh feels that the need for control is being out-paced by the need for information-sharing. Among the features of the package will be "the ability to define the user's worlds of concern".

A user can define up to seven of these, and the systems monitors these "worlds" actively, warning the user if a world "goes critical". For example, an engineer can define "production" as his area of concern, and the software will warn him if production falls below a particular level.

Data capture

Calling it "a pro-active information system", Mr Singh says, "RTwo captures 'hot data' and thus informs the user about events as they happen, so that decisions taken can affect the event, whereas EIS gives you 'post-mortem' analyses. It isn't necessary for every member of a company to have RTwo, or even a PC. Even a three-man organisation can use this software though, frankly, the fun is if the whole organisation is networked."

The product is being tested with 150 organisations worldwide and will be available off-the-shelf.

Moves to 'future-proof' the industry

Continued from previous page

and prosper as it becomes better known - "Indian companies are already being used for more sophisticated and mission-critical work by UK financial institutions. There's no reason why India should not become the silicon-centre of the world".

Mr Jain believes that Indian software industry "will need to enhance development effort and move towards becoming partners in product

development".

The challenge is to become producers of world-class software, specifically of intellectual property-based products, he adds - "we are particularly targeting the retail banking and healthcare sectors, where we are looking to have revenue from royalties. In addition, there are areas such as systems software and network software."

This upgrading "need not take terribly long - in the financial services sector, retail

banking products are being beta-tested in India, which has already moved to digital trading. Joint ventures and strategic alliances have been set up which will bring stock exchange, mutual fund and brokerage packages to the market within the next two years or so.

"We must also keep in mind that, as a result of liberalisation, India has kept two generations of technology in telecommunications, from cross-bar exchanges to digital and cellu-

lar, whereas a lot of work will have to be done in countries such as the US, costing billions of dollars, to upgrade from existing technology to digital technology."

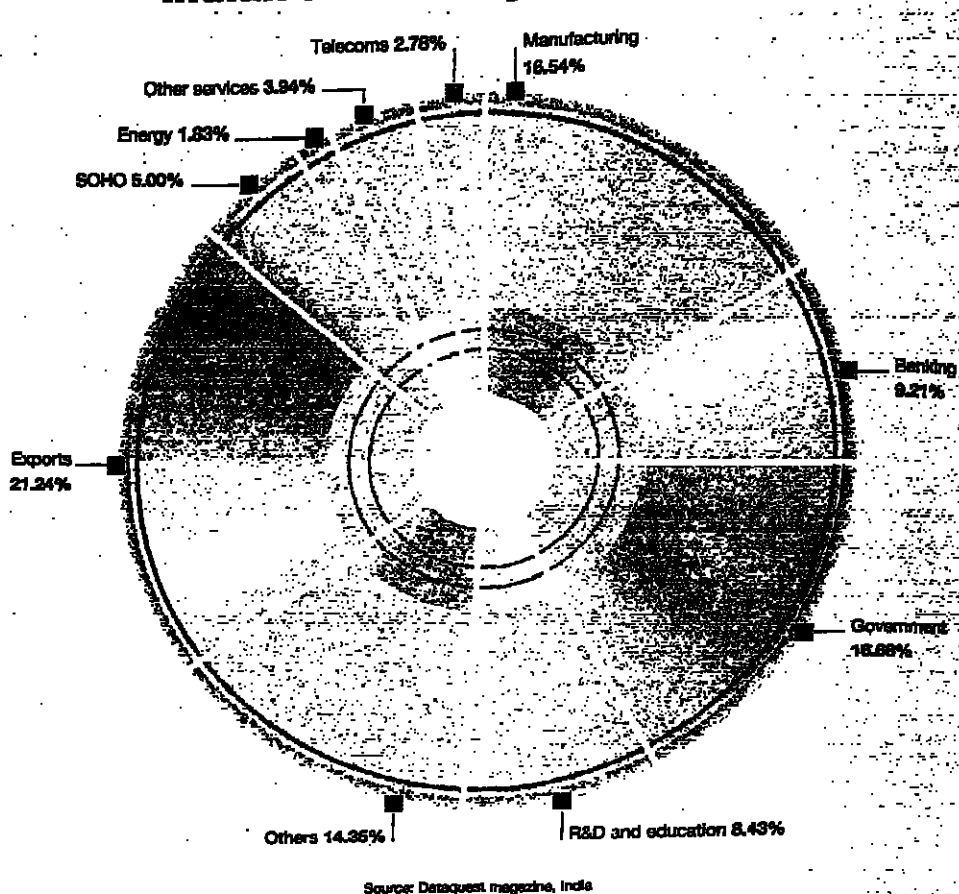
Jain also points out that work on artificial intelligence case tools is already being used in India - "work is also being done in on-line real-time translation from one language to another. Object-orientation has already been targeted by some companies as their next strategic step forward".

When asked if there were any problems in achieving this ambitious target, Mr Kienle says: "All the financial estimates were correct, but the telecommunications were not as good as we first thought. It took some effort and cost, but we have sorted these problems out now."

Among the larger projects being handled by the joint-venture are software systems for cargo-handling, due for completion next year, and passenger systems, due in 1997.

Prabhu Gupta

Indian IT industry's customers



Tata Consultancy Services was formed in 1988 as part of the Tata group of companies. India's largest and best-known conglomerate, with a turnover of more than \$5bn.

In 1994-95, TCS itself had revenues of over \$112m, and offices throughout India and in 34 foreign locations, ranging from the US, to Europe, the Middle East, South Africa,

Japan, Asia-Pacific and Australia. TCS has more than 4,000 software professionals, at least 20 per cent of whom are engaged in the development of software tools and utilities.

Among the software joint ventures with TCS is Airline Software Services, launched three years ago by Mr Hans Kienle - the venture is 75 per cent owned by Swissair and 25

per cent by TCS. "Our objective was not revenue or profits, but the reduction of costs," says Mr Kienle, chairman of the joint-venture. The objective has been "very successfully" achieved, comments Mr Kienle in Zurich. "We pay comfortable salaries in Bombay, the working conditions are pleasant, the motivation very high. We are, in fact, exceeding our target to reduce costs by 50 per cent."

When asked if there were any problems in achieving this ambitious target, Mr Kienle says: "All the financial estimates were correct, but the telecommunications were not as good as we first thought. It took some effort and cost, but we have sorted these problems out now."

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